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IN a letter to the Editors of the NEPTUNE, *published in the July 1941 issue, Count Pehr Sparre suggested the desirability of a comprehensive survey of marine collections throughout the United States. Although articles and notes dealing with various collections have been published in the seven years that have passed since this letter was printed, the war prevented any attempt to carry out a systematic survey until this summer, when Alexander Crosby Brown, one of the Editors, assumed the laborious task of sending questionnaires to institutions possessing marine collections. Mr. Brown has already assembled a considerable quantity of useful information, which will—it is hoped—eventually be published in the* NEPTUNE. *Ship pictures, models, and other objects of nautical interest are frequently preserved in libraries, historical societies, and institutions whose primary functions are scarcely related to maritime history. Consequently it is requested that any reader who has such material in his custody, and has not as yet received a questionnaire from Mr. Brown, should communicate with him at The Mariners' Museum, Newport News, Virginia.*

With the completion of Volume VIII, readers are reminded of the announcement made in an earlier issue concerning binding arrange-

ments. Messrs. Alfred Smith and Company, 338 South Camac Street, Philadelphia, Pennsylvania, will bind volumes of THE AMERICAN NEPTUNE *in standard blue buckram at $2.50 each. To avoid delay as far as possible, it is suggested that subscribers who wish to have volumes bound should immediately notify Messrs. Alfred Smith and Company of their intention, enclosing a self-addressed postcard, which will be mailed by the bindery when shipment of the volumes is desired. In this way subscribers will have the use of their issues until the bindery is ready to begin work.*

The completion of the volume also causes the Editors to make their annual request for prompt renewal of subscriptions. In this period of constantly rising costs, an increase in the number of subscribers is the most effective means of deferring the necessity of increasing the cost of annual subscription. The NEPTUNE *does not advertise. It has no paid employees. Its Editors, by the time they have seen the quarterly issues through the press, have no additional leisure available for promoting their product. New subscribers have always been found through the friendly interest of old ones. To assist in passing the word in a painless manner, a brief prospectus—of size suitable for enclosure in a letter—has been prepared, and any readers who are willing to help by distributing copies in likely quarters will earn the gratitude of the Editors. The prospectus, in any quantities required, will gladly be sent upon application to The American Neptune, Incorporated, Salem, Massachusetts.*

Captain Philo McGiffin at the Battle of the Yalu

BY EARLE R. FORREST

THE lookout on the Chinese ironclad *Chen Yuen,* anchored with the Pei Yang Squadron near the mouth of the Yalu River in the Bay of Korea, suddenly saw a thin line of smoke on the southern horizon. The next instant it was discovered by every ship in the fleet. The time was almost exactly noon of 17 September 1894, and this was the zero hour those Chinese fighting men had been looking forward to for days; for that smoke could mean only one thing—the Japanese fleet, the enemy of their country. China was at war with Japan.

And this was the hour that Captain Philo Norton McGiffin[1] had been waiting for all his life or so it seemed to him. Born at Washington, Pennsylvania, thirty-three years before, he had inherited a love for the sea from some distant Scottish ancestor in spite of the fact that he was born in an inland town.[2] That love of the sea had secured him an appointment to Annapolis in 1877, and, after completing the two years' cruise required in those days, he had graduated in 1884, only to be refused a commission in the navy of his native land because of a very shortsighted Act of Congress. This Act, passed in 1883 to impress the voters, decreed that only ten midshipmen from each graduating class should receive commissions.

After receiving his discharge young Philo McGiffin learned that China and France were at war. That was in 1885 and he immediately set sail for the Flowery Kingdom. He gained the ear of Li Hung Chang, who placed him in command of the only Chinese gun-boat that captured the only

[1] The material used in this article is chiefly derived from Captain McGiffin's own story of the Battle of the Yalu, published in the *Century Magazine,* August 1895, and from a letter to his mother, written on board the steamship *Pao-Ting,* at sea from Tien Tsin to Chefoo, 23 September 1894. This letter was quoted in full by Cyrus Townsend Brady in his *Under Tops'ls and Tents* (New York, 1901), and was also used by Richard Harding Davis in preparing the sketch of McGiffin in his *Real Soldiers of Fortune* (New York, 1906). I have also used three long letters that McGiffin wrote from China to the *Iowa State Register,* which his sister, Mrs. Sallie Henshaw, had privately reprinted in pamphlet form about thirty years ago.

[2] He came from a long line of fighting Scots. His great-grandfather had emigrated to America to fight for the struggling colonies in the Revolution and again in the War of 1812, and his father had followed General Winfield Scott from Vera Cruz over the 'Trail of Cortez' to the 'Halls of Montezuma.'

gun-boat lost by France in that short war. In spite of his youth he was accepted as a fighting man by Li Hung Chang, and upon McGiffin's recommendation the Chinese Imperial Government established the Imperial Naval College at Wei-Hai-Wei, with this young American as superintendent. He drew plans for two ironclads which were approved, and he was sent by China to superintend their construction in England. He was very proud of those two fighting ships, *Ting Yuen* and *Chen Yuen,* the mightiest in the Pei Yang Squadron; and well he might be for those two vessels fought the entire Japanese squadron to a standstill. *Ting Yuen* was the flagship of Admiral Ting Ju Chang, and McGiffin himself commanded *Chen Yuen.*[3]

For days the Pei Yang Squadron had been lashing at the bit. The men longed to meet the Japs in battle,[4] and they wanted to hunt them up; but the Office of Foreign Affairs had forbidden Admiral Ting to cruise eastward of a line drawn on the map from Shangtung Lighthouse to the mouth of the Yalu River. But now the enemy had come to them.

When *Ting Yuen* signaled to 'weigh immediately' every man sprang to his post, and as the ten vessels steamed out to meet the enemy Captain McGiffin gazed at them very proudly. Most of the officers in the fleet and all of the gunners had been trained by him at the Imperial Naval College. The fact that they were pitted against twelve Japanese vessels of heavier tonnage and superior armament did not bother McGiffin or his Chinese fighting men. They had confidence in themselves and they were ready for the great battle they had expected for weeks, all ready except for one very important item—plenty of ammunition; and McGiffin said later that their supply was alarmingly insufficient. This was to cost the Chinese a great victory; for events of the next few hours proved that if they had had plenty of ammunition the enemy would have been defeated and the Japanese army on the mainland would have been cut off from communication with the homeland. McGiffin placed the responsibility for this neglect upon the officials at Tien Tsin when he wrote later: 'So the fleet went into action as well prepared as it was humanly possible for it to be

[3] Richard Harding Davis states that McGiffin was second in command of *Chen Yuen*. He held the rank of Captain. According to his own statement, there was another officer of the same rank, Yang Yung Ling, on board, but in the *Century Magazine* article McGiffin refers to Yang as his colleague, and at no time have I found him mentioning Yang as his superior. I once asked Norton McGiffin, the captain's nephew, about Davis's statement, and he told me that his uncle was senior to Yang, and therefore was the senior captain in command. It appears that at the beginning of the battle, Yang was not very much help, but that after McGiffin was wounded he pulled himself together and fought very gallantly during the remainder of the action. After the Chinese fleet returned to Wei Hai Wei, and McGiffin was absent because of his wounds, Captain Yang—then in full command of *Chen Yuen*—shot himself rather than surrender his vessel to the Japanese, who had captured the port.

[4] The Battle of the Yalu is described in some detail in H. W. Wilson, *Ironclads in Action* (Boston, 1896), II, 82-125.

with the same officers and men, handicapped as they were by official corruption and treachery ashore.'

As the fleets closed in on each other the crew of *Chen Yuen* was silent. In a graphic description of this tense scene later McGiffin wrote:

> Dark-skinned men with queues tightly coiled around their heads and with arms bare to the elbows, clustered along the decks in groups at the guns, waiting impatiently to kill or be killed. Sand was sprinkled on the decks and more was kept handy against the time when they might become slippery. Every man's nerves were in a state of tension, which was greatly relieved as a huge cloud of white smoke, belching from the *Ting Yuen's* starboard barbette 'opened the ball.'

Those dark-skinned men knew that many of them would be dead before the sun set over the Bay of Korea that night. The scene could have been the same on an American battleship rushing to meet that same enemy fifty years later.

It was exactly 12:20 P.M. when that big gun on *Ting Yuen* fired the first shot that opened the first engagement between modern battleships. The shot fell short of *Yoshino*. Then the guns of *Chen Yuen* roared their defiance of the Japanese. The enemy waited five minutes for closer range before replying. When the Chinese opened up with quick-firing Hotchkiss and Maxim-Nordenfelt, three- and six-pounders, a hell of shot and shell rained on both fleets, and the battle of the Yalu was on in all its terrible fury.

Photography was one of Captain McGiffin's hobbies and when he first rushed to the bridge as the engagement opened he carried his kodak. As he stood there, facing death any instant, coolly snapping pictures of the first modern sea battle, he displayed a courage that would have done credit to the most daring news photographer in the last war. After making several exposures the camera was torn from his hand by the wind of a shot only a few feet away; but he recovered it before it could fall from the bridge and snapped the shutter again. The next instant a shell ripped up the bridge nearby, and he put the kodak in its case. Just as he stood up he was whirled around by the wind of a shell, fortunately on the right side or he would have fallen to the deck thirty feet below. He gathered himself up and hastened to the conning tower, where the noise and concussion caused by shells striking the armor plate was terrific in spite of cotton stuffed in his ears. It was then that he suddenly realized a very important thing—he was not frightened in the least. He told his mother in a letter later that he was as cool during the entire engagement as when writing the description of his battle experiences. And not once during the six terrible hours that followed did the McGiffin courage desert him. Although he

suffered the most intense pain from wounds during much of that time, he commanded his ship to the end.

Two Chinese ships, *Kwan Chia* and *Tsi Yuen,* fled when the first shots were fired, leaving eight to face the twelve Jap vessels.

The two old-fashioned cruisers, *Chao Yung* and *Yang Wei,* were doomed from the first by their antiquated construction. A heavy cross-fire poured in by the Japanese set both vessels on fire. Their guns were out of commission and they soon became roaring infernos; and as a forlorn hope they headed for the nearest land. This left six Chinese vessels still in action. The Japanese armed transport *Saikio* started after them, but several well-directed shots from the Chinese ironclads put her out of commission. Just as this occurred the torpedo boats *Ping Yuen* and *Kwang Ping,* that had been in the mouth of the Yalu, came up and headed for *Saikio,* and she was soon out of the battle.

Akagi boldly engaged the Chinese fleet at close range, but she was quickly disabled by a storm of well-directed shot and shell. She was badly crippled, her commander and a large number of her crew were killed, and as she steered wildly the Japanese Flying Squadron (part of the Japanese fleet) hastened to her aid.

The Japanese ship *Hiyei,* bringing up the rear of the Japanese Principal Squadron (the other part of the Japanese fleet), was attacked by *Chen Yuen.* Flames shot up from her deck, and she seemed doomed, but her captain saved her by a daring stratagem. Timing his movements to the second he boldly took a short cut between *Chen Yuen* and *Ting Yuen,* and joined his squadron on the other side, badly damaged. If the Chinese had fired shells instead of solid shot she would have gone to the bottom.

Chen Yuen and *Ting Yuen* were the backbone of the Chinese fleet. No battleship ever fought more gallantly or at greater disadvantage than *Chen Yuen* under Captain McGiffin that day at the Yalu. In spite of the fact that at times she was engaged with the entire Japanese fleet, she preserved her station and distance from the flagship throughout the battle and saved the Chinese from complete annihilation instead of heavy losses. Frequently when *Ting Yuen* was in danger *Chen Yuen* saved her by well-directed fire.

Fire broke out in *Lai Yuen* and threatened to destroy the ship, but the men stuck heroically to their posts. While crews worked the bow guns without stopping others fought the flames. It was necessary to close the ventilators to the engine rooms, but the engineers stuck to their posts, working in darkness at a temperature of two hundred degrees hour after hour. The fire was finally extinguished, but not until many brave men were blinded for life and others horribly burned.

When the Principal Squadron altered its course *Ting Yuen* and *Chen Yuen* turned, keeping bows on to the enemy front. Then all hell suddenly broke loose, making the previous fighting seem tame in comparison, as the five enemy ships, ignoring four smaller Chinese vessels, converged their fire upon the two gallant ironclads, pouring a torrent of shot and shell into them. Fire broke out on both vessels, but it was extinguished without much trouble with one exception that was eventually to cost McGiffin his life. But this will be described later.

At one stage of the battle the Japanese outmanœuvered the Chinese, and during the confusion *Chih Yuen* boldly bore down upon the Flying Squadron's line. McGiffin believed that she intended to attack *Akagi* and *Saikio,* regardless of the odds; but it was a foolhardy attempt. The fire of the Japanese was directed on her and she suddenly listed heavily, apparently struck below the water-line. Her commander, Tang Shi Chang, a courageous officer, headed for one of the largest Japanese vessels with the intention of ramming her before he went down. But he never had a chance, for almost instantly every enemy battery was turned upon her. The wonder is that she was not blown from the sea; but the only visible effect was that the list became more pronounced; but she kept her course in a last desperate effort to take one Jap ship to the bottom with her.

Just before she reached her objective the gallant *Chih Yuen* rolled over and plunged down. As she righted for an instant just before the final plunge her screws could be seen whirling in the air. The next instant she went to the bottom with all hands on board, except seven of the crew who were saved by clinging to a lifebuoy. They were carried by the tide to the coast where they were rescued by a junk.

The most terrific fighting began about three o'clock when *Matsushima* attacked *Chen Yuen.* The latter scored the first hit with a shell from a 12.2-inch gun loaded with ninety pounds of powder. The instant after it struck flames flashed up and the Japanese flagship was enveloped in a great cloud of white smoke. The shell had disabled a 13-inch Canet gun, exploding several charges of powder ready for use, and then swept the decks. Forty-nine officers and men were killed and fifty wounded.

The Japs had had enough for the time being at least, and the Principal Squadron withdrew to the southeast. The battle of the Yalu might have ended there; but *Ting Yuen* and *Chen Yuen* followed the retreating enemy and forced the Japs to battle in self-defense.

Captain McGiffin was in the conning tower when a message reached him that the turrets were jammed, and that the men could get no powder. Several times he left his station to cheer his men fighting des-

perately in the barbettes. Then he received a message that the ship was on fire at the foremast.

'Send an officer and fire party to put it out,' he ordered, but immediately the reply came back: 'The men won't go; too much shoot.'

McGiffin suspected that no officer had the courage to lead them, and, swearing softly (perhaps it was not so softly), he hastened to the scene and called for volunteers.

'Anywhere you go we'll follow,' his gallant sailors shouted.

He sent a lieutenant to stop the crews in the starboard barbette from firing the two 12½-inch rifles over the port bow, because the fire crew might be exposed to their fire; but the messenger was killed before he could deliver the order. Without a moment's hesitation the Captain led his men under the muzzles of the big port guns and climbed upon the topgallant forecastle. He saw that the situation was serious. The foremast was of steel, but the tarred rigging and woodwork were blazing furiously. He also saw the muzzles of the big starboard guns moving towards them, the gunners not being able to see the Captain and his men in line of fire; but he disregarded the danger. In fact, he did not care; the fire must be extinguished at all costs.

As he was pulling the hose up a shot or fragment of a shell clipped him on each forearm; but he held on and continued to haul up. The next instant he received a 'slap' on the groin, but it was not serious. A few minutes or seconds later, he never knew how long or short a time, he saw a vivid glare in front. A horrible thought flashed through his brain, 'this is death,' and he knew no more.

The hose, shot through, fell over him, and in a few seconds he was revived by the water; but the scene that photographed itself on his brain was the big, hungry muzzle of the starboard 12½-inch rifle only ten feet away, looking right at him—the gun of his own ship manned by his own men. In horrified fascination he watched the big muzzle rise an inch or two, and as it swung right and left a little it suddenly dawned upon his mind that the crew was aiming. The gunners could not see his peril, for the big rifle was nearly 6 feet in diameter at the breech, and he knew that they would fire after a very quick aim.

A hopeless, shrinking shudder passed over him, for he well knew that he would be blasted into eternity if he remained in that position. Covering his eyes for a fraction of a second he waited for that blast that would mean the end of the world for him. Then the thought flashed through his brain that he must try to escape, and he quickly rolled to the edge and dropped to the deck eight feet below just as the big gun roared over his head.

With shot and shell crashing around he was still in deadly peril. He longed to indulge in the pleasure of fainting; but instead, this man of iron nerve, his body aching and quivering with pain from head to foot, dragged himself to his feet and staggered to the other side. No spot on the ship was safe, for enemy shells were crashing in like hail; but at least he was not exposed to danger from the fire of his own guns. Then he collapsed.

The blast of the 1200-pound charge of powder from that gun had raked down the fire fighters, only about fifteen feet in front and six feet to the left of the line of fire. To make matters worse a Jap shell burst about eight feet in front of them, and every one of the volunteers who had followed McGiffin were hit by either that shell or their own gun. All were either killed or wounded. The Captain was injured by both; but he considered himself lucky, for one poor fellow next to him had both eyes blown from his head.

McGiffin's condition was serious. His lungs, shocked by the fall to the deck, felt as if all the air had been blown out and he could not draw it back. His body was burned by fire and powder; his hair was singed from his head, and his eyebrows and eyelashes were gone. The right half of his moustache, his right eye and side were severely burned; but the vision evidently was not injured for he could still see. Nearly blind from pain and blood streaming down his face, and suffering the most excruciating pain from no less than forty wounds, he was as wretchedly miserable as it is possible for a man to be—and still live. Spitting blood from his injured lungs and suffering from shock, he lay on the deck apparently dying, passing from one fainting spell into another. His trousers were in ribbons; even a pair of strong cotton drawers hung in strips. His tunic, burned brown and white, was full of holes, the black satin trimming and mohair braid ripped off and the gold stripes on his sleeves scorched nearly white by the heat. In spite of cotton stuffed in his ears the drums had been injured.

His men, even if they had had time to look at him, apparently thought that he was either dead or dying. He lay on the deck until a sailor saw signs of life in his beloved captain, and rushed to his aid, calling some powder men who carried him to his cabin. When he revived again his throat was so parched that he struggled to his feet and secured some brandy, but it tasted like water.

In a letter to his brother before the battle he had expressed the desire to die rather than be wounded. But badly wounded as he was he still had work to do at the Yalu. Only a man of iron nerve could have gone on; only a man of iron nerve could have survived that awful ordeal. Without

his guiding hand the entire Chinese fleet would have been wiped out that day. His heroism is something marvelous to contemplate even after more than fifty years, although many great acts of heroism on land and sea have been performed during that historic period. There have been many men just as brave, both before and since; but none were braver than Captain McGiffin.

Although he had just been through hell he still had a herculean task; and like the true captain that he was he must see to his men and ship. As soon as he could pull himself together he staggered outside to cheer and direct his men. He was compelled to hold his eyelids open with his finger so that he could see at all. No one could have blamed him if he had retired to his bunk and called the doctor; but that was not the way of this man of iron nerve. He was the kind who fights on and on until death. It never occurred to him to strike his flag, for he absolutely refused to admit defeat. That quality alone places him among the great sea fighters of all time.

Brushing the blood from his eyes, he staggered onto the deck to direct his ship. The gallant *Chen Yuen,* battered as badly as her commander, had been hit over four hundred times; but McGiffin fought on until he forced the Principal Squadron to retreat; but *Ting Yuen* and *Chen Yuen* boldly pursued, pouring in such a destructive fire that the fleeing enemy was forced to fight again after two or three miles of flight. In desperation the Japanese ships turned and circled about the two ironclads, pouring in the most deadly fire they had yet received. But *Chen Yuen,* assisted by *Ting Yuen,* fought so well that again the Japs were glad enough to call it a day and retire. *Chen Yuen* was preparing to pursue when an alarming discovery was made—the ammunition was running low. Her 6-inch ammunition was all gone, although she had fired only 148 projectiles of this caliber. One of her 12-inch guns was disabled and only 25 steel shot of that caliber remained. *Ting Yuen* was no better off, and in less than half an hour the ammunition of both vessels would be completely exhausted.

At this point the Japanese again retreated; but again McGiffin pursued. In spite of the low amount of ammunition he followed and again forced the enemy to battle. The fight was short and again the Japanese retired, for this kind of a fighter was something they could not understand. In fifteen minutes more all guns on both ironclads would have been silenced by lack of ammunition; and the Chinese regretfully watched their enemy steam away to Japan to report a 'victory' to the Mikado. But who ever heard of a victorious fleet leaving the scene of action in the hands of the enemy?

'We would have licked hell out of them if we had had plenty of ammunition as we should have had,' McGiffin told a relative after he returned to America.

When *Chen Yuen* fired her final shot at the departing Japs only three charges were left for the last moment. Where in all history will you find a defeated ship fighting to its last shot and forcing the enemy from the scene of action?

While this fight was in progress the Japanese Flying Squadron had its hands full protecting the battered *Saikio, Hiyei* and *Akagi* and covering their withdrawal. The leading Jap ships bore down upon *King Yuen,* which had caught fire and was unable to fight. A blast of 100-pound shells from the three quick-firing 6-inch guns of *Yoshino* tore out her sides, and after yawing wildly *King Yuen* suddenly burst into flames and sank. At this point the Principal Squadron, which had been driven off by *Ting Yuen* and *Chen Yuen,* signaled to the Flying Squadron to withdraw. The Chinese lost four ships, and while none of the Japanese were sunk every vessel was badly battered.

The crippled Chinese fleet limped into Port Arthur about nine o'clock the next morning. It was not until then that Captain McGiffin permitted the doctor to dress his wounds. He ordered the physician to attend to his men who he said needed attention more than he.

Thus ended the first battle between modern warships. Captain McGiffin has the distinction of being the first man of American or European blood to command a modern battleship in action—and what a battle. I have been unable to learn the exact casualties. Some authorities report that the Chinese lost one thousand, which is probably conservative. The Japanese never reported their loss, but it must have been very heavy.

As soon as he received medical attention at Port Arthur, Captain McGiffin sneaked through the Japanese blockade on board *Chen Lung,* a towboat flying the British flag, to Tien Tsin. There his wounds were again dressed by the doctor of U. S. S. *Monocacy.* Although his body was wrecked and he suffered acute torture his iron will was never broken. In spite of his agony he posed for a photograph in the torn and scorched uniform he had worn in the battle. It is a pathetic picture of a brave man, his head and face swathed in bandages until only one eye and part of his nose and half of his moustache are visible; but the look from that one eye and the pose are as defiant as ever. From Tien Tsin he went to Chefoo.

When the crippled Chinese fleet finally surrendered to the Japanese after the fall of Wei-Hai-Wei, Admiral Ting and the commanders of the vessels followed the ancient Chinese custom of committing suicide. The

authorities suggested to McGiffin that he should also take his own life, and when he declined with thanks he fell into disrepute.

He well knew that he could never fight again, but the Japanese did not know his condition. All they knew was that an American named Philo McGiffin had all but defeated their crack squadron, and they were afraid that if he had another chance the result might be different, and they could not afford to lose one major sea battle; for the Chinese in control of the sea would cut off all communication between the Japanese troops on the mainland of Asia and their homeland. Determined to capture this daring American, the Japanese high command offered a reward equal to $5,000 for his capture or death. His friends, both American and English, advised him to leave the Orient; for there was no telling when some fanatic, stimulated by this reward, might decide to send him to his ancestors.

Like all brave men he did not fear assassination; but his health was rapidly declining. His nerves were shattered, his senses were not as acute and he never slept except from sheer exhaustion. His thoughts turned to his native land, and for the first time in his adventurous life he was homesick. He longed to see his folks once more, and his memory pictured the wooded hills of Washington County, Pennsylvania, where he had wandered as a boy. Years had passed since he had seen them; but each one was indelibly stamped upon his mind and he could see their outlines against the blue summer sky.

He decided to return home; but he was confronted with the problem of getting through the Japanese blockade. Every merchant vessel that left a Chinese port would be searched for him; but the commander of a British man-of-war smuggled him through the line of warships to a neutral port from which he sailed for Europe.

When he landed in New York the last of April or the first of May 1895, he found that he was the hero of the hour, for his fame had preceded him, and he was given a welcome that must have warmed his heart. Almost eleven years had passed since he left his native land to fight for China in her war with France; but he had seen more of life in those years than most men see in a lifetime.

He lost no time in getting home to his folks. I was only a boy then; but I remember him well after his return from China; for this man from our own town, who had fought the Japanese to a standstill, was the hero of every small boy in Washington, Pennsylvania. Time and again we heard our elders recount tales of his adventures, and we regarded him with real reverence. He was a greater hero to us boys than was Admiral Dewey a

little later. A tall man, fully six feet, always dressed in a neat white uniform of an officer of the Chinese Navy, he was a striking figure that commanded attention in spite of the fact that he was thin, almost to the point of emaciation. Before the battle he had tipped the scales at two hundred pounds; but when he returned he weighed scarcely a hundred and his face was always drawn with pain.

He was never free from pain, and spent hours pacing the floor at home or walking the streets, for he was more comfortable when walking than sitting. His body, filled with small pieces of metal, is described by those who saw him as having the appearance of a checkerboard.

James B. Wylie, a boyhood friend of McGiffin, told me five years ago:

> He was as badly shot up as a man could be. His abdomen seemed to be filled with pieces of steel. I could see them in his flesh like powder burns, while the skin was rough and ridged and hard. You could even see steel splinters sticking through the skin. I never saw a man so discouraged as Philo McGiffin was at that time. He knew that he could not live much longer, and the one thing that made him feel so discouraged was because he thought that his life had been a failure. He said that he had never accomplished anything worth while.

After McGiffin had remained at home a short time the old restlessness seized him. He made a voyage to England; but it was a heartbreak, for the rolling of the ship agitated his wounds and he suffered very much. Colonel Pope gave him the management of the Hartford Cycle Company at Hartford, Connecticut.

Finally, an abscess in his head, caused by a wound, became serious and an operation was necessary, and he went to New York City. His heart was so weak that he could not take ether, and the operation was performed without an anaesthetic. The attending physicians afterwards said that they never knew a man to endure such a painful operation as bravely.

For a time he lived in a New York lodging house at 40 West Thirty-third street, where he led a pathetic existence; he who had loved life so much; he who had enjoyed life so much; he who had roamed over the oceans of the world knew that his end was near—still too young to die. For weeks he lived there, dragging out a miserable, hopeless existence. Then Robert M. Thompson, a generous friend of the Navy, discovered him and had him removed to the Post Graduate Hospital.

The end came on 11 February 1897. He asked the nurse to bring in the service box he always carried with him and then requested her to leave as he had some papers and articles he wished to examine. Concealed in the bottom of the box was the service revolver he had carried at the Yalu. An instant later the report of a pistol rang through the building, and

when nurses rushed into the room they found that Captain Philo McGiffin was at rest. Human endurance could stand no more. And so passed one of the great naval heroes of all time—and a gallant gentleman.

His body was taken to the home of his father at Washington, Pennsylvania.[5] He lay in his coffin dressed in the uniform of an officer of the Chinese Imperial Navy. Draped over the casket was the imperial dragon of China in dark blue on a field of yellow, the same that had flown over *Chen Yuen* at the Yalu, the ensign of Imperial China, the land and flag he loved next to his own and for which he had given his life. This flag is still preserved in the Washington County Historical Society with other McGiffin relics.

During the service Dr. James I. Brownson, pastor of his father's church, read from Captain McGiffin's own copy of the English Book of Common Prayer, 'The prayer to be said before a fight at sea against an enemy,' from the 'Forms of Prayer to be used at Sea.' Marked in pencil was the notation that McGiffin himself had read this to the Christianized Chinese in *Chen Yuen* just before they went into battle at the Yalu.

He was carried to his grave in the Washington Cemetery by five friends of his boyhood; and today you may see the last resting place of this great sea fighter, marked by a marble monument with this inscription:

PHILO NORTON MC GIFFIN
DEC. 15TH, 1860– FEB. 11TH, 1897.
COMMANDER OF THE CHINESE BATTLE-SHIP
CHEN YUEN
AT THE BATTLE OF THE YALU
SEPTEMBER 17TH, 1894.
'A BROKEN AND A CONTRITE HEART,
O GOD, THOU WILT NOT DESPISE.'
THIS TABLET IS ERECTED IN TENDER MEMORY
OF A BRAVE MAN WHO LOVED HIS OWN, BUT
GAVE HIS LIFE FOR AN ALIEN FLAG.

[5] The Washington County Historical Society, Washington, Pennsylvania, has a collection of essays written by McGiffin's Chinese students at Wei-Hai-Wei, as well as the battle flag of *Chen Yuen* and a large oil portrait of McGiffin, painted from a photograph taken in China. In May 1948 I discovered, stored away in a closet in the Society's building, the trousers, torn and blood-stained, that McGiffin wore in the battle, and a naval blouse with marking similar to the one he wore in the battle. There is also quite a collection of curios he made in China, one of which is a naval revolver, but there is nothing to indicate whether he carried it in the battle. It may have been the one he shot himself with, but this is not certain.

The American Four-Mast Bark Star of Poland *ex*-Acme

BY HAROLD D. HUYCKE

THE construction of iron and steel square-rigged sailing vessels in America did not reach the proportion in numbers that it did abroad in European shipyards. Scarcely fifteen such ships for commercial use were built in this country, nine of which came from the Sewall shipyard on the Kennebec River at Bath, Maine. By the end of the nineteenth century Arthur Sewall had produced five steel four-mast barks for his own account and operation and the smaller three-mast bark *Kaiulani* for Williams, Dimond & Co., of San Francisco. In 1900 the Standard Oil Company of New York took delivery on *Astral,* first of a trio of 3200-ton four-mast barks on order from the Sewall yard, followed six months later by her sister *Acme* and in the following year by *Atlas,* last and largest of them all.

Prior to the turn of the century, the Standard Oil Company had chartered ships under foreign flags to carry case-oil to the Orient, a thriving trade that dated back into the 'seventies. 'Case-oil' was the term applied to crated tin cans of kerosene with three to five gallons capacity each, a by-product of the rapidly growing oil industry of Pennsylvania. This kerosene could be purchased more cheaply by the Orient's millions than the less satisfactory and more expensive vegetable oils on which they had heretofore been dependent. The Standard Oil monopoly as it existed toward the end of the nineteenth century consisted of various subsidiary companies including the Anglo-American Oil Company, Limited, Standard Oil Company of New York, Standard Transportation Company of Hong Kong, and others. Steel sailing ships were then engaged in the final round in their struggle to retain a foothold in deep-water trade. That 'steam was here to stay' was an accepted fact in maritime circles, but it was also believed that as long as the wind blew there would always be work for the windjammer in specific fields of seagoing commerce. Thus it was that some of the largest windjammers built were employed in the case-oil trade to the Orient, owned by these various companies of the

Standard Oil Trust and named for their various brands of illuminating oil. The sisters *Daylight* and *Brilliant,* both flying the Red Ensign, topped the list of sail-powered giants, registering nearly 3800 gross tons each.

Instead of going to British shipyards for their three new sailing ships the Standard Oil Company of New York placed their orders with A. Sewall for the triplets in order that they might be employed in coastwise and intercoastal trade. For the ensuing dozen years 'oil for the lamps of China' was carried in these American bottoms until trust-busting activities dismembered the Rockefeller octopus in 1912.

The East Coast ports of Philadelphia, New York, and Baltimore were the chief loading terminals while Shanghai, Hong Kong, Manila, Yokohama, and Kobe were the ports of destination in the Far East. Hawaii was annexed in 1898 and organized as a United States Territory in 1900, and the various island sugar ports such as Hilo, Kahului, and Honolulu thus came under the jurisdiction of the American coastwise and intercoastal shipping laws. After a ballast run from the Far East ports to the Hawaiian Islands *Acme, Astral,* and *Atlas* most of the time were able to secure a sugar cargo destined for American East Coast ports. These additional paying cargos enabled them to continue sailing for a few additional years in the face of ever growing steamship competition. The three sailing ships were all similarly employed but it is with *Acme* that we are concerned at present.

The steel four-mast bark *Acme* was launched 21 May 1901 at Bath, Maine, and christened by Miss Annie J. Pitou of New York. After a dozen years of service in the wooden ships *John Currier, Columbus,* and *Triumphant,* Captain Reuben J. Lawrence of Malden, Massachusetts, was appointed to take the big square-rigger on her maiden voyage.[1] Lawrence was a native of Dresden, Maine, a 'giant amongst shipmasters, both in his stature and his capabilities as a seaman'[2] standing seven feet two inches and well appointed to take the big ship from the stocks. *Acme* was ship Number 46 in the records of the Sewall shipyard, although she was only eighth in their steel ship series. Her dimensions were: length, 332.3 feet, breadth, 45.4 feet, depth, 26.1 feet, registering 3288 gross tons, 2987 net; loaded displacement tonnage, 6865; light 1825; and a deadweight carrying capacity of 5040 tons. On these dimensions *Acme* was able to load 135,000 cases of case-oil over a hundred and seventy tons of ballast, or less that half the bulk capacity of a modern average size tanker.

Viewed from abeam *Acme* showed very little sheer to her hull and as little rake to the masts. Her heavy spike bowsprit was stayed at a low angle

1 Mark Hennessey, *Sewall Ships of Steel* (Augusta, Maine: Kennebec Journal Press, 1937), p. 315.
2 Alfred Basil Lubbock, *The Downeasters* (Glasgow, 1929), p. 204.

and fitted with a short martingale. All of the Sewall-built ships were distinguishable from other vessels of their rig by their large wheel-houses and chart-houses on the poop. The fact that no figure-head or fancy work adorned their bows made them even more noticeable. *Acme* was heavily sparred, strongly stayed and more fortunate than her sister *Astral,* in this respect. After several dismastings due to short doublings of the topgallant-masts, *Astral* did away with her royal yards altogether and became 'bald-headed.' *Acme* carried royals above double topgallant and double topsails on three masts and a single trysail on the spanker. On an open main deck running from poop to fo'c'sle head were built two deck-houses which were made accessible in heavy weather by a fore-and-aft bridge running the length of the ship. *Acme* and *Astral* differed in only two or three respects. *Acme* featured a short spanker topmast, and her light-houses were at the end of the fo'c'sle deck instead of twenty feet forward of this point as were those of her sister. A white-painted hull gave her a smart appearance, when the inevitable rust streaks were painted over, and during her time under the Standard Oil Company's houseflag she was never allowed to fall into disrepair.

Although *Acme* was considered a better than fair sailer by her builders, her first round trip to the Orient was a slow one. On a voyage that dragged out for two hundred and six days she was badly beaten by Sewall's wooden four-mast bark *Shenandoah* which made the passage from New York to Japan in the good time of a hundred and thirty-nine days. *Shenandoah's* passage was said to be the fastest time over that course for the previous ten years.[3] The Anglo-American Oil Company's big *Brilliant,* flying the British flag under the command of Captain Cowlishaw, eclipsed *Acme's* time by nearly five weeks despite damaged steering gear which had to be jury-rigged. Captain Lawrence was very likely dissatisfied with *Acme's* poor performance and rightly so. Another race between the two steel windjammers was arranged some time later but *Acme's* luck was still against her and *Brilliant* again won.[4] In continuation of her first voyage the American oil carrier sailed from Hiogo, Japan, to Honolulu where she arrived in the spring of 1902. In the island port she loaded a cargo of sugar, but was three days getting out of sight of Oahu because of calms.

Captain Lawrence remained in command of *Acme* until 1904 when he died on board after a passage to the Orient. Captain McKay relinquished command of *Atlas,* which he had taken from the stocks two years previously, and took over *Acme* where he remained for several years.

[3] F. C. Matthews, *American Merchant Ships* (Salem, 1930), I, 291.

[4] Alfred Basil Lubbock, *Coolie Ships and Oil Sailers* (Glasgow, 1935), p. 123.

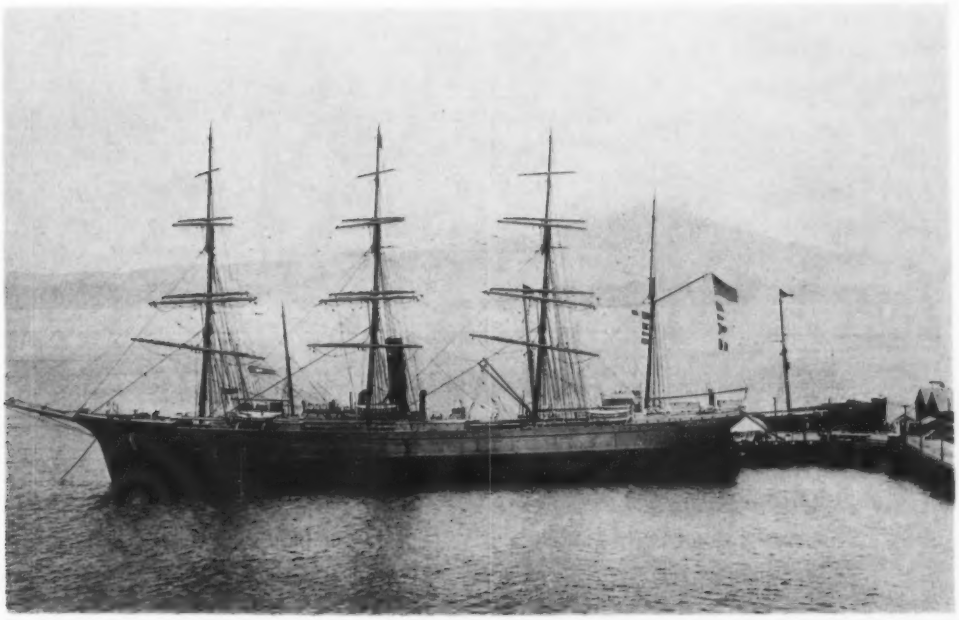
Loading at Baltimore in 1905 *Acme* sailed on 17 June for Manila with a cargo of coal consigned to the United States Navy. Before she had been out three months from the Chesapeake she went ashore at Prince's Channel in the Orient on 10 September, spoiling what likely would have been a better than average passage. After discharging her cargo at Cavite, where she arrived on 24 October, *Acme* was surveyed, but the extent of the damage to her bottom could not be accurately ascertained and she was towed to Singapore and placed in dry-dock. Here, at a cost of $155,000 in Straits currency the following repairs were made: installed thirty-nine new plates on the port side from the keel out to H strake; sixty-two plates removed and faired; ten more being faired in place. On the starboard side ten plates were renewed from the keel to F strake, thirty-one plates taken off and faired, and thirty-seven faired in place. In addition to the plate damages, twelve frames were partly renewed and twenty-six were faired in place. Additional damages to keel, stringers, floors, and rudder were repaired, all of which kept *Acme* at the shipyard until the end of the year.

An East-bound voyage from the Pacific in the late summer of 1906 was not without incident for *Acme* encountered field ice and met with more than two dozen bergs off Cape Horn 'from which she fled in prudent retreat for more than twelve hours.'[5]

On 3 June 1907 she arrived at San Francisco from Hakodate, Japan, where a cargo was quickly loaded and a return voyage made to Japan. After discharging in the Far East, *Acme* sailed for the United States Pacific Coast in ballast but was dismasted en route. While under lower topsails the ballast shifted to starboard throwing the vessel on her beam ends. To keep the ship from foundering the crew was compelled to cut away the three topgallant-masts which all went overboard and were lost with all their fittings and spars with the exception of the mizzen lower topgallant yard. Despite this loss *Acme* finally made the Columbia River bar under the remaining stumps and was towed up the river to Portland. Here she was completely refitted with new spars, sails, running and standing rigging. Repairs having been completed in January 1908, *Acme* loaded a cargo of lumber for the East Coast whence she sailed by way of the Horn.

Late in 1904 Congress had passed the Government Supply Law which was designed to favor aid to American ships in securing bids to transport coal to the various United States naval stations in the Pacific. Prior to that date practically all of the Navy's supply of coal had been carried in

[5] Hennessey, op. cit., p. 315.

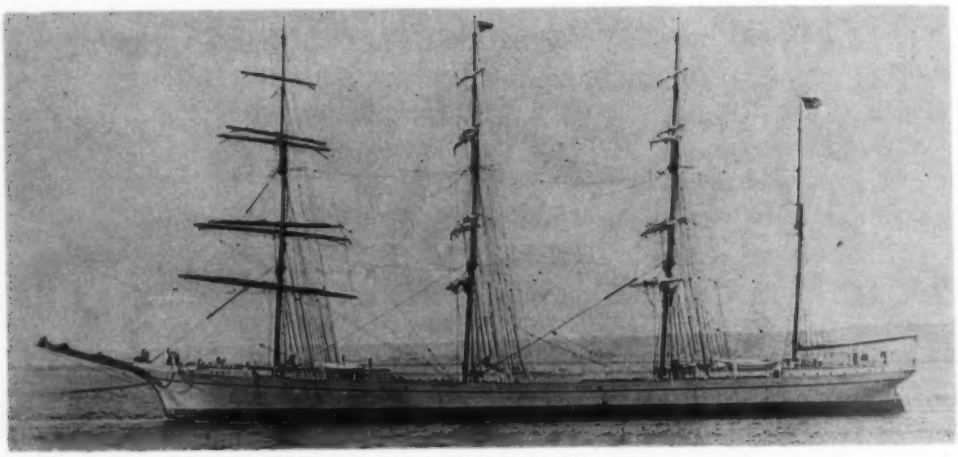


Bark *Acme* lying at Standard Oil Company Pier, Port Richmond, California

Reproduced from a photograph by Morton Waters Co.

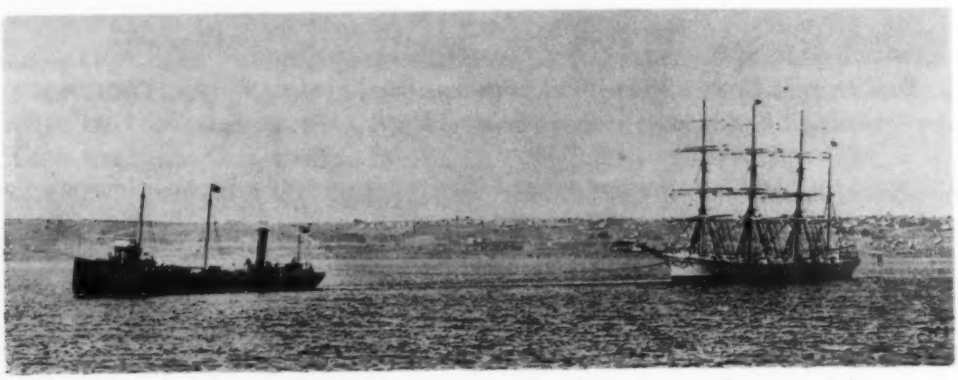
Bark *Star of Poland*, ex-*Acme*

Reproduced through the courtesy of Clarence N. Rogers



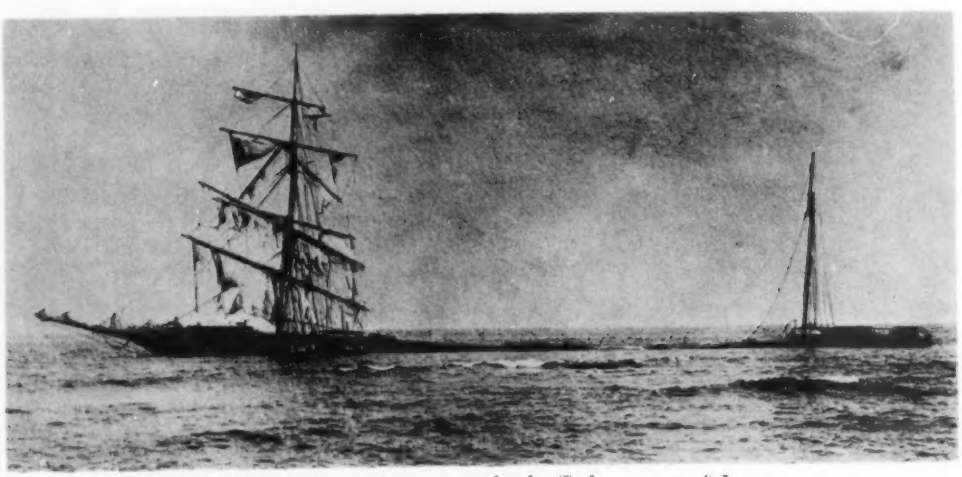
Bark *Acme* at San Diego, California, 1910

Reproduced through the courtesy of Jerry MacMullen



Bark *Acme* leaving San Diego, California, May 1910, under tow of the Standard Oil tanker *Maverick*

Reproduced through the courtesy of T. W. Peters



Bark *Star of Poland*, ex-*Acme*, wrecked off the coast of Japan, 1919

Reproduced through the courtesy of J. A. Gibbs, Jr.

foreign ships at a much cheaper rate, which of course was detrimental to the well-being of the American merchant marine to say nothing of the question of national security. Coinciding with this law was the Philippine Law, the purpose of which was to restrict transportation of cargoes between the Philippine Islands and United States ports to American flagships only. The case had applied to the Hawaiian Islands and Porto Rico for the previous three years and was the only concrete protection that American ships enjoyed in remaining profitably active against foreign competition. However the Philippine Law was side-tracked, amended, and eventually repealed by 1908 before it could become active, and the Islands did not come under the scope of the United States Coastwise Laws until 1922. The former law aided somewhat in keeping American ships at sea with paying cargoes although the benefits they derived therefrom were allocated to steam and sail alike. Eventually the encroachments of steam on the livelihood of even the most economical windjammers continued to hasten the day when sail could no longer secure a profitable cargo except in restricted trades.

In 1910 *Acme* again secured a charter from the Navy, this time at Philadelphia to deliver a cargo of coal to West Coast naval stations. After a voyage of one hundred and twenty-five days around Cape Horn the bark arrived at San Diego on 19 April where she lay for about ten days discharging part of her cargo at the Spreckels wharf. She was then towed by the Standard Oil tanker *Maverick* to Mare Island on San Francisco Bay to deliver the balance of the coal. (Plate 26) The following year under Captain Park, *Acme* took a cargo of lumber from Puget Sound to Bath, becoming the only one of the nine steel Sewall-built square-riggers to return to the Kennebec.[6]

Despite the temporary aid the aforementioned Federal Law gave to deep-water American sail, there was no remedy for the anticipated damage that the Panama Canal would inflict on the windjammers' livelihood once that waterway was completed. In the spring of 1912 *Acme's* owners contracted for her sale to the Alaska Packers Association of San Francisco, which still continued to operate a large fleet of sailing ships and was always on the lookout for larger carriers. *Astral* and *Atlas* had preceded *Acme* into this new calling a couple of years earlier, being renamed *Star of Zealand* and *Star of Lapland* respectively. *Acme* was under charter to carry coal from the East Coast to Seattle; delivery of the vessel was to be made to her new owners upon arrival. On the voyage out the cargo heated and she was forced into Montevideo on 5 September where 1200 tons of coal were

[6] Ibid., p. 315.

discharged. By 17 October she was ready to resume her voyage but trouble with the crew detained her until 6 November when she finally got away. One hundred and nineteen days later, on 5 March 1913, the bark finally arrived at Seattle where her cargo was discharged.[7] Some time later while handling the vessel under tow in a strong wind *Acme* drifted onto a mud flat, fouled the wreck of the old *Mariechen,* and suffered some slight damage. It was not sufficient to warrant delay and the Alaska Packers accepted her on 4 April. Her white hull, characteristic color of the Standard Oil ships, was painted black and her upper works were given a coat of buff. *Acme* had, by becoming a unit of the Alaska Packers fleet which spent most of its time at anchor or in winter lay-up, left her calling as a deep-water sailer and took the colors of the Alaska Packers Association. Her new owners' ships rarely saw the latitudes into which Standard Oil had sent their windjammers.

Nine days later on 13 April she was towed to Nanaimo, British Columbia, for another part cargo of coal where she lay six days loading. Thence she was taken under tow to Bellingham, Washington, for shooks and lumber to be used in packing the season's catch of salmon at the Association cannery at Naknek, Alaska. On 9 May under the command of Captain J. A. Thomsen, a veteran Alaska Packers Association skipper, *Acme* sailed for Naknek in Bristol Bay making the voyage up in four weeks. While the fishing season lasted and the crew and cannery hands were engaged in catching and canning salmon, the bark lay idle. By 21 August the pack was put on board and *Acme* set sail for the Golden Gate, passing through Unimak Pass a few days later. Only nineteen days from the cannery to San Francisco on the homeward bound voyage and *Acme* picked up the pilot outside her new home port on 9 September.

Upon her arrival from Alaska the bark was given a thorough overhauling and fitted out for her new work. The Alaska Packers maintained their own dockyard in Alameda where the entire fleet spent the winter months inactive except for overhaul and cleaning, ready for the coming season. In October 1913, while she was being converted, *Acme's* name was changed to *Star of Poland* to conform with the names of the iron and steel ships. She was the seventeenth sailing ship of metal construction that the Association had purchased during the previous thirteen years, only one of that number being lost in the intervening time. She was also the fourth

[7] *Acme's* westward voyage from the east to west coast around Cape Horn was one of the last such voyages made by an American sailing ship. In October 1913 Sewall's four-mast bark *Edward Sewall* left Philadelphia for Seattle on an epic voyage that marked an end to the east-to-west Cape Horn trade for American sailers, taking two hundred and ninety-three days to complete. Several eastbound voyages have since been made, the last by the bark *Kaiulani,* ex-*Star of Finland,* as late as 1941, flying the Panama flag. *Kaiulani* was owned in San Francisco and manned by Americans on this last voyage.

Sewall ship to find her way into this last stronghold of American square-rigged sail, for Williams, Dimond & Co. had given up operation of *Kaiulani* a couple of years before and sold that bark to the Alaska Packers who renamed her *Star of Finland.*

Besides constructing quarters for Orientals with a hundred and fifty bunks, the Association made numerous other changes and repairs. A new main topgallant-mast was sent up, the entire main deck recaulked, four store-rooms, one coal locker, and a Chinese galley built, in addition to cutting fourteen new dead-lights and installing a new steam pump in the donkey room. By the last of January 1914 *Star of Poland* was ready for sea and departed on 4 February for Nanaimo to load coal. Captain P. C. Rasmussen, who succeeded Captain Thomsen in command, brought the ship to the Vancouver Island port in five days. Ten days were required to pour in a cargo of coal and the bark this time was taken in tow by the tug *Hercules* on 19 February for the return to San Francisco Bay.

After arrival inside the Golden Gate the coal was discharged, later to be distributed amongst the ships of the fleet which began to load supplies and sign on crews several weeks later. *Star of Poland* departed from the Bay for the 1914 fishing season on 20 April, being assigned to the Loring cannery station in Alaska, and making the voyage northward in three weeks. For nearly five months she lay idle, but by the end of September the summer catch was nearly stowed and on 2 October she set sail for the return trip to San Francisco. The homeward passage lasted nineteen days, after which the bark again laid up for the winter at Alameda.

The season of 1915 was similar to the previous one, *Star of Poland* again making the round trip to Nanaimo for coal before sailing to Alaska in the spring. After the season was over she returned to San Francisco on 10 October only ten days from Loring, and discharged her cargo. Three days later she towed down San Francisco Bay and sailed for Port Townsend, Washington, where she arrived eleven days later under charter for an offshore voyage. After loading part of a lumber cargo there she shifted down the Sound to top off in Port Ludlow, sailing for Melbourne, Australia, early in November.

Star of Poland had made her last voyage to Alaska in the capacity of a cannery ship and the balance of her short career was spent under various charters on voyages to transpacific ports. The World War in Europe had begun to affect shipping facilities throughout the world in both wartime and normal peacetime channels of trade, which in turn offered a welcome boost to a stagnant American merchant marine. *Star of Holland, Star of Finland,* and *Star of Poland* were the windjammers of the Alaska Packers

fleet that were chartered for offshore voyages during those war years, but the first two made only a couple of trips and returned to their accustomed Alaskan runs.

From Melbourne, where she arrived on 10 February 1916, *Star of Poland* sailed for Caleta Buena, Chile, to pick up a nitrate cargo. A good run of thirty-four days brought the bark across the South Pacific to the Chilean port on 3 June, where she anchored and began the slow process of loading nitrate from lighters. At that time the Chilean and Peruvian ports were full of idle German sailing ships which had been interned for the duration of the war by the neutral countries. While these unfortunate ships of a belligerent nation swung idly at their anchorages waiting for the war's end, *Star of Poland* daily sank lower to her marks as the bags of nitrate were swung into her holds. By the end of the first week in July the loading was finished and *Star of Poland* sailed for Honolulu, a voyage which took her more than a month to complete and ending at the Hawaiian port on 15 August.

Upon her return to the Pacific Coast she was again chartered to load lumber for Australia, sailing from Puget Sound on 11 November 1916. The voyage to Port Pirie, a small port located in Spencer Gulf, was a long one and *Star of Poland* was at sea nearly four months before making her arrival on 6 March 1917. Following is an extract from a letter dated 10 March 1917, written by Captain Rasmussen from Port Pirie:

> After leaving Puget Sound, found vessel very cranky. On 20 November sent down royals to relieve vessel, but as this did not have the desired effects, on 21 November jettisoned about forty-five thousand feet of deck-load [lumber] which relieved the vessel somewhat. On 3 February at a point to the southward of Tasmania, encountered a heavy gale from the southwest with hurricane force and was forced to jettison another tier of deck-load, about forty-five thousand feet, to relieve the vessel. The *Star of Poland* should never carry less than a thousand tons of ballast under a lumber cargo.

On 6 April in continuation of the above letter Captain Rasmussen stated:

> There is considerable work to be done to vessel. Called a survey on 5 April and found eleven beams in the lower hold cracked in wake of brackets, and two in the 'tween decks. This breakage was done on the voyage from Puget Sound to Port Pirie.

Star of Poland lay in Port Pirie until 12 May, discharging her cargo and getting the damage repaired. She then loaded a cargo for Callao, Peru, probably coal at Newcastle, N. S. W., making the Pacific crossing in seventy-nine days, a slow passage indeed. After discharging at the Peruvian port the big bark proceeded down the coast for another nitrate car-

go at Caleta Buena, where she lay for over a month loading. By the end of October *Star of Poland* had seen the last of the barren and bleak coast of Chile en route to San Francisco, but it was a sixty-five day voyage from there to the Bay. During most of January and all of February 1918 she lay at the Packers yard while her poop deck was recaulked and a new mizzen topgallant-mast fitted.

By this time the United States had been actively engaged in World War I for ten months and the Shipping Board chartered her for a voyage from San Francisco to Manila with a general cargo, sailing from the Pacific Coast port on 8 March. Captain Jack Larsen assumed command, taking with him F. K. Klebingat as Chief Mate, on *Star of Poland's* last voyage from the Golden Gate. Seventy-two days later she arrived at Cavite Bay and lay for over a month, discharging one cargo and loading another. During this voyage her best day's run was two hundred and forty-eight miles, although she once touched twelve knots south of Hawaii.

By 1918 experienced sailing ship crews were hard to find to man the few remaining big steel square-riggers that flew the American flag, and *Star of Poland's* crew-trouble may be an example of what sailing ship operators were up against. The situation had reportedly become so acute by the time the ship was ready to sail, that 'Six months in jail or ship in the *Star of Poland*' were the alternatives offered a number of deep-water sailors who had for some reason or other fallen into the hands of the law. When the big windjammer was finally manned, there were on her articles besides the master and two mates, a crew consisting of two boatswains, a carpenter and sailmaker each, twenty-four sailors before the mast, six cadets, a cook and two messmen, making a total of forty men. After her arrival at Manila *Star of Poland* lost one sailor, accompanied over the side by the carpenter, sailmaker, and one cadet.

Star of Poland's return cargo destined for San Francisco included on the manifest 900 tons of copra in the 'tween decks, sugar, and a combined deck-load of cocoanut oil and lumber. Even though she was not a notably fast sailer there were only enough stores on board for a reasonably quick passage home. The ship left Manila early in August and started north and northeast through the Bonin Islands to find the westerly winds that would take her all the way to the American West Coast, the same road over which she had sailed in her Standard Oil days. She got as far north as the thirty-fourth parallel and met with calms when located about six hundred miles from Yokohama. When it became apparent that the supply of stores would not last the voyage home Captain Larsen decided to

put into Yokohama for reprovisioning. Prevailing winds from the general southerly direction added to the north-bound Japanese current prevented *Star of Poland* from reaching the latitude of Yokohama as the ship approached the Japanese coast. Only a general chart of the Japanese Islands was found on board but from this a large-scale chart of the coastline was produced, to include the section from No Jima Saki to Inuboe Saki which were about a hundred and sixty miles apart on the peninsula between Tokyo Bay and the Pacific. While trying to beat in toward the southern point of No Jima Saki, *Star of Poland* repeatedly set to the northward and raised Inuboe Saki instead.

After beating around for forty-two days in the attempt to reach Yokohama, *Star of Poland* found herself on a lee shore in a typhoon which lasted about a week. At one-thirty in the morning on 15 September 1918 she struck the beach off Tosomisaki, Shiba Ken, six miles south of Katsuura Wan. For the first few hours of pounding by the heavy swell she remained intact but by 6:30 A.M. she had broken into three pieces losing all four masts overboard. Captain Larsen, the two mates, bos'n, and a few sailors were stranded in the fore rigging where they had taken refuge, saving the ship's dinghy and tomcat from the crashing seas. A breeches buoy line was sent ashore but fouled on the reef some hundred yards inshore, so a line was tied to the dinghy in another attempt to float a line ashore. Part of the cocoanut oil was poured on the seas to smooth them down but the dinghy was quickly pounded to pieces on the reef and the line fouled. As the ship was breaking up heavy seas threw one of the ship's anchors on top of the windlass and broke off most of the capstans level with the deck.

By 10 A.M. that day most of the crew had managed to get ashore with the aid of some Japanese who had come to the scene of the wreck; by 3:00 P.M. all the crew had been rescued save one, a sailor named John Ludwigsen who was a survivor of three previous wrecks. *Star of Poland's* survivors were sheltered in a temple at Hamanamegawa [River-beside-the-beach] and later taken to Tokyo where they were eventually shipped back to the United States. Four days later the body of Ludwigsen was found and buried nearby, being the only casualty of the wreck.

Both ship and cargo were complete losses, but the Alaska Packers were paid a sum in excess of $350,000 for the loss of *Star of Poland*. There were two casualties amongst the Packers fleet of windships during the war years, but *Star of Poland* was the only one under Government charter.

So ended the career of *Star of Poland,* the only vessel of the Alaska Packers iron and steel fleet to spend her entire life flying the Stars and Stripes from the monkey-gaff on her spanker mast.

A Canoe from the Penobscot River

BY WENDELL S. HADLOCK AND ERNEST S. DODGE

FOR many years a Penobscot Indian birch bark canoe has been displayed on top of the cases at the south end of East Hall in the Peabody Museum of Salem, Massachusetts. The label conservatively states that it is a canoe, gives the tribe, and adds the information that it was given to the East India Marine Society in 1826. Little notice was taken of the canoe, and it was not thought to possess any particularly historical merit beyond being a representative example of that particular type of craft. The early accession date, however, combined with certain features, the decorative designs and colors used for ornamentation, and the materials and workmanship, indicate it to be one of the oldest known Penobscot birch bark canoes.

The canoe first appears in our records in the manuscript donation list of the East India Marine Society for 1826. In the printed catalogue of the museum of 1831, it is listed as number '3674, Indian Canoe, from the Penobscot River.' The craft is now recorded as E 14268, in the Ethnological Catalogue of the Peabody Museum of Salem.

The canoe was badly in need of repair and in February 1947 it was decided to restore it. During the next two months, Mr. Hadlock replaced most of the spruce lashings and otherwise repaired the canoe so that it should last for another hundred years. It was during this period of reconstruction, and while investigating other bark canoes for comparative techniques of manufacture, we discovered that, to our knowledge, no other canoe approached this craft in age by at least fifty years. Thus it appears that our canoe is the oldest known of its type in existence from the Maine-New Brunswick area and therefore of unusual historical and ethnological significance.

Canoe building was one of the most extensive and important skills among the Indians of Maine and the Maritime Provinces where it furnished an easy, convenient mode of travel, and without which the economic life of the hunting nomadic Indians would have been greatly re-

stricted. Canoes, light and sturdily constructed and easily carried by one person overland between navigable waters, were eagerly sought by those Indians living south of the range of white birch as they facilitated passage up and down the many rivers and streams. The importance of the birch canoe to the economic life of Indians during the exploration period, and to white men in the early colonial and fur-trading times, is forcibly brought to our minds by the many historical accounts mentioning its use as an aid in traveling and as a means for shipping supplies to and from remote posts.

Although there are many references relative to the use of native water craft in the journals by the earliest explorers and missionaries to northeastern North America, the information regarding the design and construction of such boats is very limited or totally lacking. The earliest mention of boats in this region is by Jacques Cartier, who recorded in his voyage of 1534 that he met Indians in the mouth of the Bay of Chaleur who were traveling by boats from one shore to another.[1] Father Biard, writing of the Indians of Port Royal at a much later date, said, 'They make the canoes, that is, skiffs of marvelous rapidity, out of bark; . . .' and that, 'These canoes are so made that, if you do not sit very straight and steady, they immediately tip over; . . .'[2]

With the coming of the first settlers and fur traders, more attention was given to the native inhabitants and their material culture, which is reflected in the writings of that period. Among the early observers was a Nicolas Denys who from about 1632 to 1650 lived at Saint Peters in Cape Breton and at Nipisiguit, New Brunswick, where he observed and made notes on the customs of the Indians with whom he traded. In his writings we find the first detailed description of an Indian canoe. He said:

> For making their canoes they sought the largest Birch trees they could find. They removed the bark of the length of the canoe, which was of three to four fathoms and a half [in length]. The breadth was about two feet in the middle, and always diminished towards the two ends, falling away to nothing. The depth was such that for a man seated it came up to his armpits. The lining inside for strengthening it was of slats, of the length of the canoe and some four inches broad, lessening towards the ends in order that they might match together. On the inside the canoe was lined with them completely, as well as all along it from one end to the other. These slats were made of Cedar, which is light, and which they split in as great lengths as they wished, and also as thin as they pleased. They also made from the same wood half-circles to form ribs, and gave them their form in the fire.
>
> For sewing the canoe, they took roots of Fir of the thickness of the little finger,

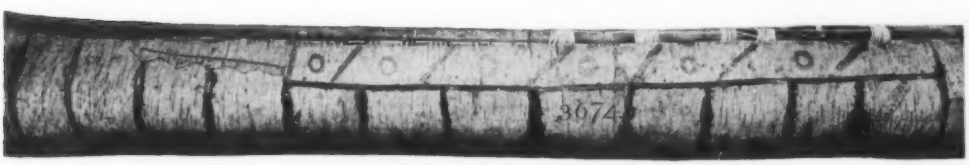
[1] J. P. Baxter, Ed., *A Memoir of Jacques Cartier* (New York, 1906), p. 103.

[2] R. G. Thwaites, Ed., *The Jesuit Relations and Allied Documents* (Cleveland, 1896-1901), I, 77 and 159.

Penobscot Canoe [Catalogue E 14268] in the Peabody Museum of Salem

Model of a Malecite Canoe from the St. John River region [Catalogue E 13150] in the Peabody Museum of Salem

This model was given to the Museum in 1803 and is illustrated to show the similarity of profile design to the Penobscot canoe.



Section in the middle of the Penobscot Canoe [Catalogue E 14268] on the starboard side

Shows side reinforced by piece of birch bark with scalloped edge as a paddle guard and the decorated insert.

Interior view of the Penobscot Canoe [Catalogue E 14268] in the Peabody Museum of Salem

Shows ribs, sheathing, thwarts, inside of gunwale, and bulkhead.

and even smaller; they were very long. They split these roots into three or four parts, that is the largest ones. These split more easily than the Osiers used in making baskets. They made these into packages, which they placed in the water for fear lest they might dry up. There were also necessary two sticks of the length of the canoe, entirely round, and of the thickness of a large cane, and four other shorter sticks of Beech. All these things being ready, they took their bark and bent and fixed it in the form the canoe should have; then they placed the two long pieces all along and sewed them to the rim inside with these roots.

To sew they pierced the bark with a punch of pointed bone and passed through the hole an end of the wicker, drawing and tightening the stick as closely as they could against the bark, and always enwrapping the stick with the wicker so that they were in contact with one another. The sticks being well sewed on all along, they placed also the smaller pieces of beech crosswise, one in the middle, entering at its two ends into holes made in the pieces with which the canoe is rimmed, and three others in front of it, distant a half fathom from one another, which lessened in length with the shape of the canoe. Three others also were placed backward at the same distances. All these pieces entered also at their ends into holes which were made in the pieces sewed all along the canoe, to which they were so firmly attached on both sides that the canoe could neither enlarge nor narrow.

Then are placed in position those big slats with which they lined all the interior of the canoe from top to bottom, and they were all made to touch one another. To hold them in place, they put over them those half-circles, the ends of which were brought to join on both sides below those pieces which were sewn all around on the top. They drove these in with force, and they lined all the canoe with them from one end to the other. This made the canoe stiff to such a degree that it did not yield at any point.

There were seams in it, for in order to narrow it at the two ends, they split the bark from above downwards; they then overlapped the two edges one over the other, and sewed them. But to prevent the seams from admitting water, the women and girls chewed the gum of the Fir every day until it became a salve which they applied by aid of fire all along the seams, and this tightened them better than pitch. All this being done, the canoe was finished, and it was so light that a single man could carry it on his head.[3]

Although Denys' description is a more detailed account of canoe building than the works of later historians and present-day writers, it is lacking in the necessary details for the complete construction of a birch bark canoe of this region. It is of particular interest to note the close parallels of construction followed in canoe building among the Micmac of the middle sixteen hundreds, as recorded by Denys, and the Penobscot of the early eighteen hundreds.[4]

[3] N. Denys, *The Description and Natural History of the Coasts of North America*, edited by W. F. Ganong (Toronto: The Champlain Society, 1908), pp. 420-422.

[4] The Micmac, with whom Denys was probably most familiar, occupied the eastern portion of the Gaspé Peninsula and northern Nova Scotia; the territory of the prehistoric Penobscot has been generally conceded by the present-day ethnologists to be confined to the watershed and bay regions of the Penobscot River.

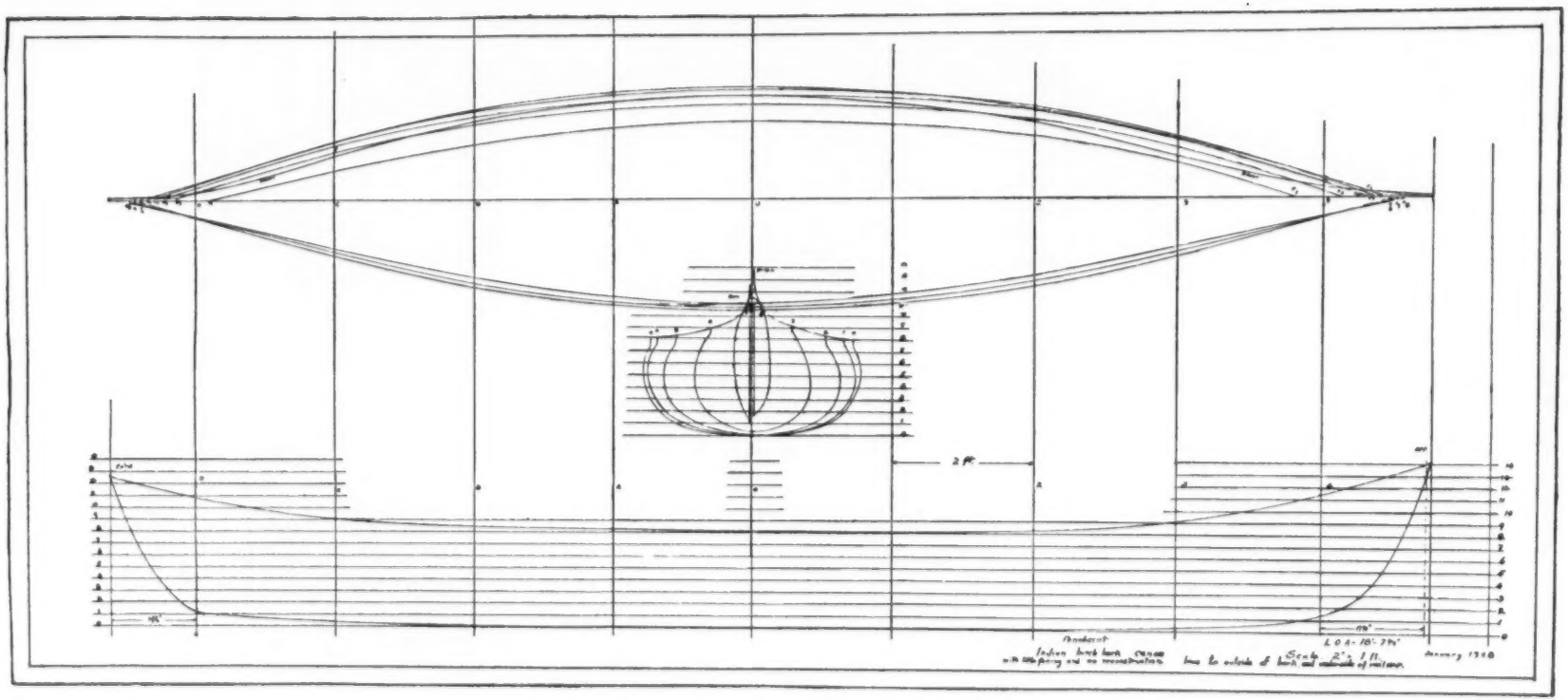


Fig. 1. Lines of the canoe taken off by D. Foster Taylor

The following description is the result of a detailed study of the early Penobscot canoe shown in Plate 27, and also illustrated by plans drawn to scale (Figure 1).[5] This study has revealed many details not hitherto published and supplements the common knowledge of birch bark canoe building.[6] The canoe is 19 feet, 7¾ inches overall length, by 3 feet, 1 inch greatest beam and is, like most canoes of similar dimensions, made from one piece of bark.

As Denys related, the actual construction of the canoe was not, in most instances, undertaken until all materials had been assembled. The bark was the last item to be prepared as it had to be worked in its green state, when it could be bent and laced into the proper shape without great danger of tearing. If a delay in the construction of the canoe could not be avoided, the bark had first to be placed in water to make it supple.

The gunwale, with a few exceptions, consists of the rail, the outer protective siding, and a top railing (Figure 2a, c). Some canoes, particularly those made by the Micmac of Nova Scotia, omitted the cap by turning the rail so that the outer protective siding laid facing upward at about a forty-five degree angle amidship, thus performing a dual function of being the cap and the siding. The gunwale, as well as the ribs, stem, bulkhead, and lining or planking, were all made from white cedar *(Thuja occidentalis)*. This material was rifted from the tree and later worked to the desired proportions with sharp cutting implements. In later years after the introduction of iron and steel, the crooked knife was used almost exclusively for wood working. In cross-section, the rail was square and about 1½ inches thick amidship, slightly tapered towards the bow and stern (Figure 3). On the outer and undersides, notches were cut, into which the ends of the ribs were to be fitted (Figure 3b); mortises were also made to receive the ends of the thwarts (Figure 3b). After the rails had been spread to the desired width and held apart by spreaders and the thwarts installed, the ends were secured with cedar bark wrappings.

The next process in construction was to place the birch bark on a level area with the inner bark down, and kept in position with rocks so arranged that they formed the general pattern of the bottom of the canoe. The outer edges of the bark were then turned upward and held along the rail by stakes driven into the ground. At this time the sheer was deter-

[5] The authors are greatly indebted to Mr. D. Foster Taylor, who prepared the plans of this canoe shown in Figure 1. The drawings for Figures 2, 3, and 4 were made by Mr. Robert Morse.

[6] Both Eckstorm and Speck contain extensive accounts of Penobscot canoes obtained from Indian informants. These standard sources should be consulted for other details relating to the subject. F. H. Eckstorm, 'The Handicrafts of the Modern Indians of Maine,' *Lafayette National Park Museum Bulletin*, III (Bar Harbor, 1932), 55-64. F. G. Speck, *Penobscot Man* (Philadelphia: University of Pennsylvania Press, 1940), pp. 57-68.

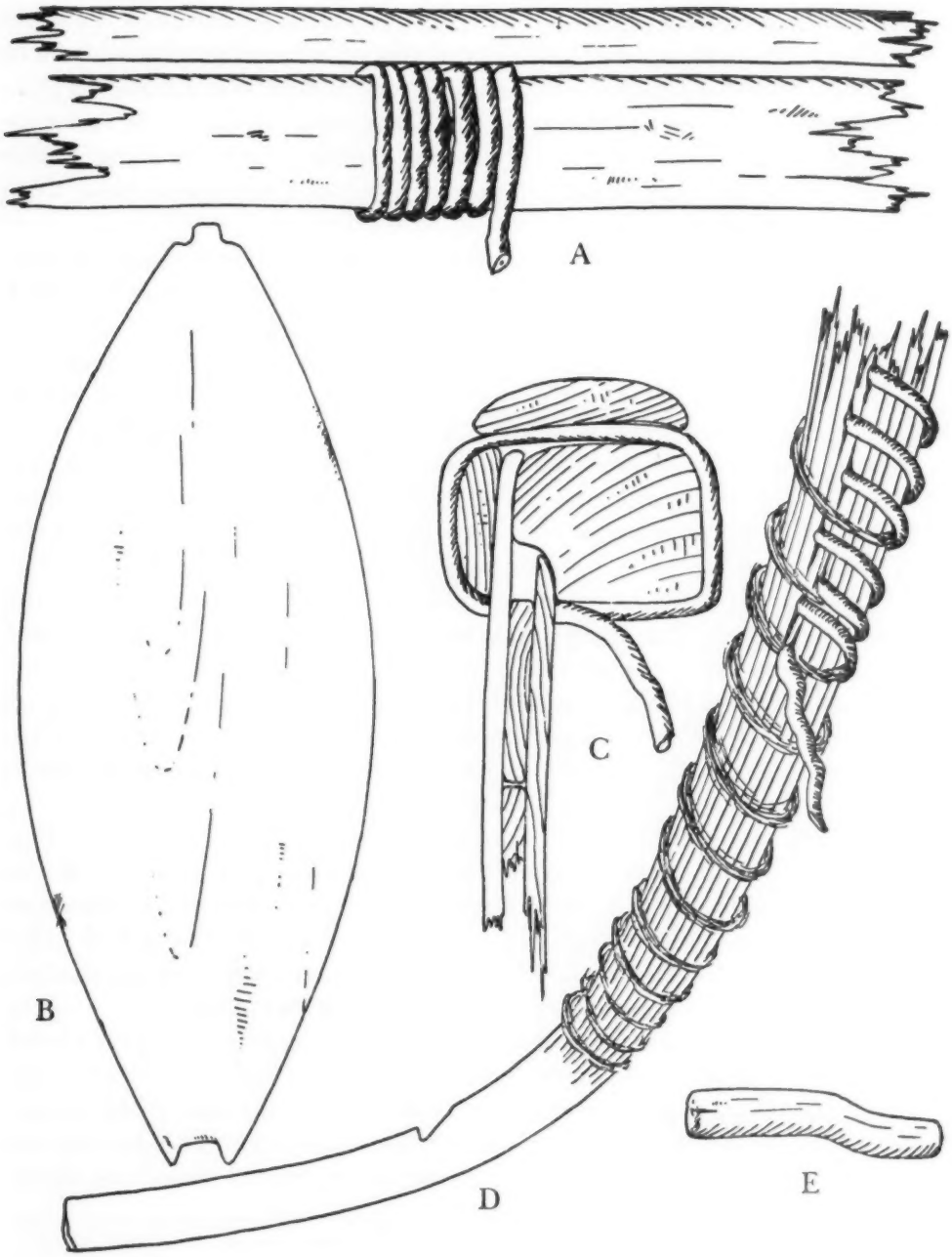


Fig. 2. Details of construction: *a*. section of rail and spruce root lashings; *b*. bulkhead; *c*. cross-section of rail and side; *d*. stempost; *e*. peg showing result of strain

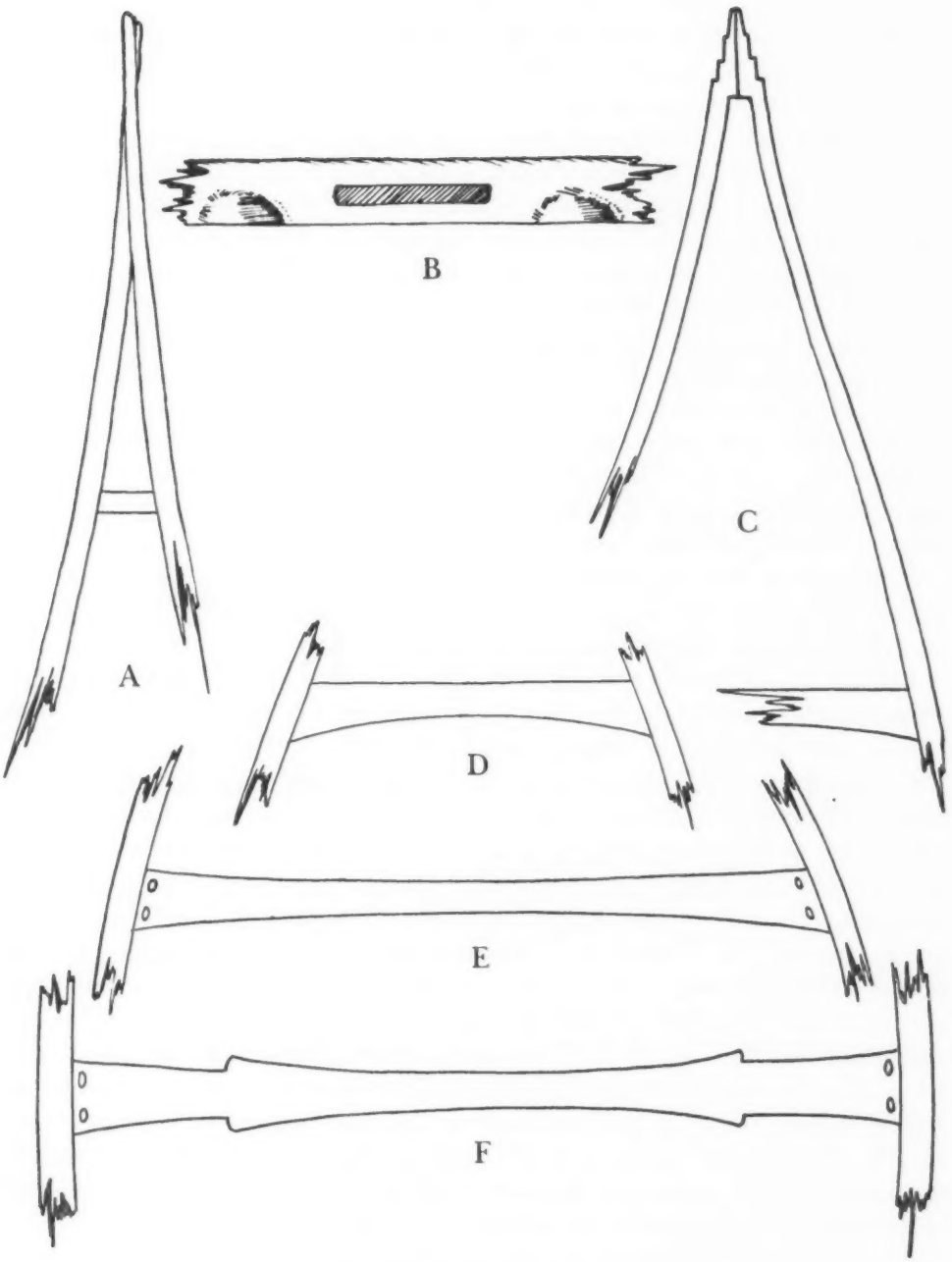


Fig. 3. Details of construction: *a*. top rails showing overlap of ends; *b*. section of inner gunwale showing notches for ribs and mortise for thwart; *c*. inner gunwale at end; *d*. end thwart; *e*. quarter thwart; *f*. center thwart

mined and the upper edges of the bark were trimmed to conform to the lines of the gunwale, and the gores were made at regular intervals on each side, which permitted the bark to lie snugly against the inner rail. The edges of the gores overlapped about half an inch at the gunwale.

After the bark had been trimmed and otherwise prepared so that it needed no other major alterations, it was securely fastened to the rail by means of wooden pegs which passed through the outer protective siding. It is interesting to note the warped condition of these pegs—a clear indication of the severe strain to which they have been subjected (Figure 2e). The outer protective siding was made of cedar and laid flat against the birch bark (Figure 4). The holes for the wooden pegs in the rail and outer siding were predetermined and made before the actual assembling of the canoe. The pegs passed through the outer protective siding, the birch bark, and well into the rail, and in some cases passed entirely through the rail. After the bark had thus been permanently secured, the pegs were trimmed flush with the outer surface.

Split spruce root lacings were used in binding the bark more securely between the rail and outer protective siding (Figure 2a, c).[7] Denys mentioned that small roots were split into three and four parts, but from our studies it appears that the canoe builders of this region used roots approximately three-eighths of an inch thick which they split down the center and trimmed to remove any irregularities. We have noted that the roots of smaller diameter were used toward the ends of the craft.[8] The average length of the lacings used on the gunwale was about 10 feet.[9] The end of the lacing was feathered and inserted between the bark and outer rail. Lacing was done from the outside inward and the standing part was brought up over the railing. As the root was brought up over the gunwale, it was drawn tight. This forced the outer and inner rails together and securely held the birch bark in place. Each stitch did not necessarily pass through a separate hole in the birch bark as the perforations must not be close together.[10] The number of stitches depended on the length of the root—the average was eight. The interval between lacings averaged from 3 to 4 inches. When each section of lacing was completed, the end was rove under the last three or four turns of that section. The completed lacing presented a neat and well-ordered appearance and each turn laid closely against the other with no overlapping or crossing.

[7] Spruce root was not exclusively used and other soft wood roots were sometimes substituted.

[8] The prepared root is kept moist to retain its flexibility.

[9] A suitable root from which lashings may be made is found in the coniferous forests on the edges of swamplands, or other areas where the root is not required to go deeply into the ground to secure the necessary moisture and nourishment.

[10] Perforations in the birch bark were made by means of bone awls prior to the advent of the explorers and traders.

Upon completion of the gunwales, the gores were trimmed to insure uniformity in the overlapping of the bark and were sewn with split root. The root lacings used in the gores were much smaller than those on the gunwales and two types of stitches seem to have been employed. The preference of one stitch over the other appears to have been dictated by the strain to which that particular part of the canoe would be subjected. The gores forward and aft of the quarters were laced with an overhand clockwise stitch from the bottom of the gore to the rail. A double thread cross-stitch was employed on the gores at the bilges amidship which terminated about a foot below the rail. From this point to the rail a single overhand stitch was employed. The cross-stitch pattern was made with two split

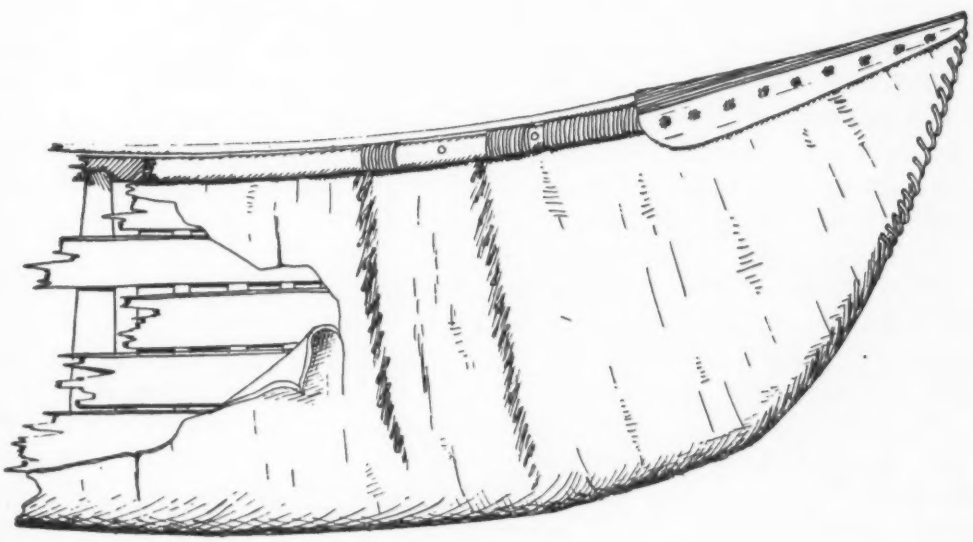


Fig. 4. Sketch showing construction and relationship of birch bark to sheathing and ribs

roots, one laced overhand clockwise and the other overhand counter-clockwise, with the lacings crossing at the seam.

A lining or sheathing of very thin strips of rifted cedar was next placed inside the canoe. The thin planking was trimmed along the edges, permitting each piece to fit closely against the other without overlapping. The planking was fitted amidship and held in place by a rib, and then fitted towards the ends of the canoe, being held in place by ribs inserted at more or less regular intervals. The remaining ribs were later added,

after being trimmed to fit tightly into the notches which were previously cut in the rail. Each rib was driven into position working from amidship towards the bow and stern. The ribs had been previously roughed into the general length and width and bent into a half circle or to parabola form, depending on the position the ribs were to occupy in the canoe. The molding of the ribs took place soon after the wood had been rifted from the log, as thin green cedar splits could easily be molded into the desired shape.[11]

Although the planking extended to the ends of the canoe, ribs could not be fitted into this narrow space. Consequently the bow and stern were very weak structurally. To insure a certain degree of rigidity, a stem of cedar was braced against the last ribs of the bow and stern. About two-thirds of the entire length of each stem was made triangular in cross-section and the remaining portion was half round. The triangular part of the stem was split into seven or more parts and wrapped with cedar bark. The stems of the Penobscot canoe were split into seven and nine parts respectively (Figure 2d). The purpose of splitting the stem was twofold as it facilitated bending the wood into the proper shape, and permitted the builder to pass the split root lacing of the bow and stern through the stem. The upper end of the stem was tied in securely with the rails. The birch bark of the bow and stern was trimmed so that the sides met without overlapping and was laced with a double overhand stitch similar to the lacings of the gores at the bilges. The bark forward and aft of the point where the inner rails converge was brought up and overlapped on a line with the rails, thus making the bow and stern completely decked over. The overlapping of this bark was sewn into position without any semblance of regularity. The ends were then packed with cedar shavings, which performed the dual function of keeping the shape of the ends and giving buoyancy to the canoe when filled with water. The bulkhead (Figure 2b) was then forced into position by stepping the lower end into a notch which had been previously cut in the stem. The bulkhead fitted tightly against the planking and, in addition to strengthening the canoe, kept the packing in place. As an additional protection against leakage, particularly in rough water, flaps of birch bark were placed on the bow and stern.[12] They were installed over the outer bark of the canoe and under

[11] Denys mentioned that the Indians formed their ribs in fire. It may be probable that Denys saw Indians steaming ribs preparatory to molding them into shape, as the material may have dried and was no longer pliable. The wood is first soaked in water until it is thoroughly saturated, and then held over a fire, which causes the water in the wood to turn into steam, thus rendering the wood pliable.

[12] Speck, op. cit., p. 61, found that these pieces were called, figuratively, 'diaper' or 'breech-cloth' by the Penobscots at Indian Island.

the outer protective side rails. Each extended from the bulkhead to the extreme end of the canoe.[13]

The top railings (Figure 3a) were the last installed and unlike the inner gunwales, extended the entire length of the canoe. They were attached by means of wooden pegs which were driven through the top rail and well into the inner gunwale. To further strengthen and secure the three-piece gunwales, several root lashings were employed—one each at the extreme ends and another at the convergence of the inner gunwales and the upper end of the bulkhead.

The final step in preparing the canoe for the water was pitching the seams. Any of the soft-wood pitches could be made suitable for this operation. The pitch was usually boiled and mixed with some form of grease to give elasticity. It was applied when hot and pressed into the seams with a dampened stick, or with the hands, which had been first dipped in water. Particular attention was given to the bow and stern seams and it was found on this Penobscot canoe that small strips of cedar and birch bark had been mixed in with the pitch. It appears that successive coatings of pitch were placed over these seams and before each coat had cooled, small strips of bark were imbedded. A coarse, open-weave cloth used on the bow and stern was undoubtedly the result of later repairs.

Birch bark canoes in the Penobscot River area were usually decorated either by bark engraving or painted designs. Another form of decorative art less commonly used, the cutting of geometrical patterns in the lower edges of the stem flaps and paddle guards, has been found on a few canoes of this area. Except for one incident—the zigzag cutout on the lower edge of the paddle guard (Plate 27)—the entire decoration of the canoe under discussion is executed with black and red paint. The flaps on the bow and stern are painted black on the top and the lower portion on each side is outlined in red, thus forming a panel containing a single row of red dots. The bow flap has eight dots on the starboard side and nine dots on the port, and the stern flap has seven dots on the starboard side and eight dots on the port. On both the port and starboard side of the bow and stern are painted zigzag lines extending for about 18 inches from the apron. The upper portion of this line is in black and immediately below and parallel with it is a red line. The inserts amidship are also decorated. The starboard insert is divided into seven sections by diagonal red and black lines (Plate 27), the red being always above and the black below. Each

[13] The original flaps of this canoe had been removed from their original position before 1826 and the present ones were placed over the top gunwales and secured into position with iron nails. Faint outlines of the original position occupied by the flaps may be seen at both the bow and stern of the canoe.

section, except one, contains a single black and red circle, the red forming the outer circumference of the circle. The bark insert on the port side has similar decorations, but is divided into five sections, which is undoubtedly due to this insert being much shorter than that of the other side.[14]

All the elements in the simple decoration used on this canoe can be considered old and without doubt, aboriginal. The straight incised zigzag lines of similar decorative pattern have been found archaeologically on pottery and bone work in the Penobscot River region. The dot decoration, as evidenced on the aprons and side panels, is very old and widely distributed in North America. It is commonly found in the general northeastern area on Eskimo bone work, Naskapi caribou skin painting, and in all the various art techniques used by the Wabanaki and Iroquois tribes. The simple decorative art used on this canoe is in sharp contrast to some of the later more complex art which may contain many European elements.

A comparison of the line drawing (Figure 1) with many illustrated canoes of this region will bring forcibly to the mind of the reader that there has been a tendency on the part of the illustrators of the northeastern woodland birch bark canoe to emphasize the ends. They have exaggerated the bow and stern to appear as if the ends swept upward and back over the gunwale. This conclusion was also reached by Mrs. Eckstorm, who wrote, 'The ends of the wooden gunwale mark the greatest extent and greatest length and greatest height of any part of the canoe—a point often disregarded by artists.'[15] Lucius L. Hubbard, also commenting on the same subject, had this to say, 'The ends curve more or less according to the fancy of the builder, but seldom according to the fancy of any illustrators.'[16] From a comparative study of models and canoes of the Penobscot, Malicite, and Passamaquoddy, emphasis was not placed upon the high stern and bow until recent times. It seems that this innovation is, in the Maine region, when it occurs, a comparatively modern adaptation of Ojibwa bows and sterns and used only on those later canoes sold for commercial purposes.

Many canoes of the Penobscot and Passamaquoddy Indians have a narrow strip of birch bark amidship, which is usually highly decorated, either with painted designs, carvings, or etchings. This insert may have the dual purpose of being a reinforced panel inserted over the gores

[14] Other, related, styles of decoration on these inserted panels are shown on the two canoes figured by Speck, op. cit., p. 58.

[15] Eckstorm, op. cit., p. 57.

[16] L. L. Hubbard, *Woods and Lakes of Maine* (1884), p. 115.

amidship and as a panel for decorative purposes. The inserts on the canoe under discussion are 6 feet long and 5 inches wide on the starboard side, and 3 feet 10 inches long and 5 inches high on the port side. The inserts amidship are not a distinctive feature for canoes of this region. The Penobscot canoe also has an overlay of birch bark forward of the position taken by the stern paddler. This overlay is decorated with a triangular edge and was undoubtedly a protection and reinforcement to the sides of the canoe against the sweep of the paddle.

Although this canoe appears to have been in use for some time before being presented to the East India Marine Society Museum and was constructed similar to other canoes from the same and adjacent regions, it has one structural weakness. The inner lining of the rifted cedar joins on the center rib, or the rib forward and aft of the center rib. The making and breaking of the inner planking so near the center rib had caused this canoe to become strained and broken amidship. A check of other canoes of this region reveals that this structural feature is not unique in many of the Indian canoes over 16 feet in length. Consequently, the bark becomes strained and in most cases breaks across the bottom from one gunwale to the other.

A Seventeenth-Century Chart Publisher:

Being an account of the present firm of SMITH & EBBS Ltd., Printers and Stationers, who have a continuity in business of 300 years

BY W. R. CHAPLIN

ONE of the earliest English publishers of charts and nautical works of the seventeenth century is still in business as printers and stationers, under the name of Messrs. Smith & Ebbs Ltd. This firm must stand high in the record of old established businesses in the City of London; originally printers, stationers and publishers of such works as found a public demand in the earlier part of the seventeenth century, in the latter part thereof the firm embarked on the publication of maps and charts as well as a wide range of mathematical and nautical works. Almost at once they began an association with the Trinity House, then foremost in advancing the science of navigation, and assisted both financially and by the surveys made by their members in improving sea charts, these most essential aids to the mariner.

This association with the Trinity House still continues after over two hundred and fifty years, and may well rank among the records for any business house, even in a city whose merchants have long business connections; they have, however, others worthy of notice, such as St. Thomas's Hospital whose work they have done for some two hundred years.

Throughout the eighteenth century, under the name of Mount & Page, they were the principal publishers of charts in England, and probably pre-eminent in the world; however, changing conditions gradually led to the abandonment of this once important feature of their work, which is now almost unknown, although their early works are considered of value for historical and geographical collections and command relatively high prices.

The business has a continuity of about three hundred years, although the name has been changed from time to time as hereinafter related, until in 1826, it passed into the hands of Messrs. Smith & Ebbs, and after three generations of Smiths and two of Ebbs over a period of more than half a century it became a limited company under the same name, and as such may continue for many generations.

The genealogy of the firm as compiled from their own records is as follows:—

Richard Mount		1686
Mount & Page		1701
Page & Mount		1728
James Davidson	October	1797
Mount & Davidson		1799
Davidson, Smith & Venner	August	1801
Smith & Venner	June	1802
Samuel Smith	November	1803
S. & F. Smith	March	1817
S. Smith & Co.	July	1824
Smith & Ebbs	December	1826

According to their published books, however, there were changes in their name, not included in the above, which will be noted later, and their publications, and other researches have enabled the continuity of the house to be carried back to before Richard Mount. The early proprietors were freemen of the Stationers Company, printers and book binders as well as booksellers and were amongst the first to engrave and print sea charts as well as nautical works in a way which, in the latter half of the seventeenth century, made them more readily available to the mariner.

The house was at Postern Row, Tower Hill, a row of houses which formerly stood in the middle of the present roadway on the north side of the Tower of London and in more ancient times ended at the Postern Gate of the old City Wall. When the Wall was broken down and removed, the Postern Row remained for another hundred years and more, during which time the bookshop and printing house continued there. It was demolished only when long overdue road-widening was decided upon in connection with the improved approaches to the then projected building of the present Tower Bridge. (Plate 31)

How old the firm is and when first established cannot now be traced, but in 1677 it is referred to on the title-page of a book they published in that year as having been printed by William Fisher at the *Ancient* Shop by the Postern Row on Tower Hill. This is the first proprietor of whom we have any clear record, the earlier history being obscure, but by inference it appears that he was a son of William Fisher. The latter was a son of John Fisher of Bryneton in the County of Northampton, Yeoman, and was bound apprentice on 25 June 1595 to Thomas Gubbins, Citizen and Stationer, for nine years from the Feast of Pentecost (8 June 1595).

Thomas Gubbins had been made a Freeman of the Company of Stationers on 31 January 1586, the entry in their records being 'Received

of him for his admission freeman of the Cumpanye iijs. iiijd.'[3/4*d*]. He at once set up in business and the first registered book of his publications was in September 1587 when the Company received their registration 'fee of vjs. [6/-] for his printing a book entitled *Amorous fiammetta,* translated from the Italian.'

The Stationers are not one of the oldest of the City Guilds and were originally an informal and voluntary brotherhood, but there is certain proof of their existence in 1520, and on 4 May 1556 they became an Incorporated Fellowship and finally, on 1 February 1560 were created by the Lord Mayor one of the Liveried Companies of the City, then about forty in number. Within a few years they were approving and registering the publications of their members.

No little importance attached to their craft, and a contemporary historian wrote 'An honest stationer is he, that exercizeth his Mystery, whether it be in printing, binding, or selling of Books, with more respect to the Glory of God and the public advantage, than to his own commodity; and in both an ornament, and a profitable member of a civil Commonwealth,' of which modern publishers might make a note!

Thomas Gubbins died in 1629, being then described as of the parish of St. Botolph, Aldgate (adjoining Tower Hill), Citizen and Stationer. William Fisher, his apprentice, completed the nine years of his indentured apprenticeship and was admitted a Freeman of the Company of Stationers on 4 June 1604; however, he predeceased his former master, having died in August 1621, being also described as of the parish of St. Botolph, Aldgate, Freeman and Stationer, and therefore may have become a partner with Thomas Gubbins.

It is probable that the business moved to the adjoining parish at some time in the middle of the seventeenth century, possibly on the death of Thomas Gubbins, and William Fisher, Jr., may have taken over an established business or gone into partnership with one there, as we have seen that in 1677 it was referred to as the *ancient* shop by the Postern Row. Of the earlier years of William Fisher there is no trace, but by the above year he had become a leading printer and had ventured into the publication of nautical works and charts, no doubt prompted by the increasing demand for them, or inspired by the skill of the surveyors who were now exercising their craft far beyond their own country. It was this work which was to make the house famous for the next century.

The more eminent mathematicians and surveyors long made Tower Hill their home and therefore it was almost inevitable that they should become associated with William Fisher and his successors as their publish-

er. Amongst the works advertised by Fisher were several which long remained standard works. In some instances they were not first-published by him but were later editions of works written many years before; amongst these were *The Seaman's Practice,* and *Norwood's Epitome of Navigation,* both by Richard Norwood, who may have disposed of his rights to William Fisher, as they were republished by the firm for many years after his death.

The author, born in 1590, was a surveyor and teacher of mathematics who, in 1616, was sent out by the Bermuda Company to survey the islands of Bermuda, then newly settled, his map being published in 1622. From that year until 1640 he lived on Tower Hill where he taught mathematics. During that time (in 1637) his *Seaman's Practice* was first published; there were further editions from time to time during nearly a hundred years and the last one appears to have been in 1732.

Between June 1633 and June 1635 Norwood measured the distance between London and York by chain, making corrections for all the windings of the ways as well as for the ascents and descents. He also, from observations of the sun's altitude by a quadrant having a five foot arc, computed the difference of latitude of the two places, and then calculated the length of a degree of the meridian. Considering the roughness of his methods and the imperfections of his instruments, it is surprising that his result was only six hundred yards in error, and was the nearest approximation that had then been made in England.

During the Civil War he was in Bermuda, but was in England in 1667 and in that year his *Epitome* was first published. He died in Bermuda in 1675, aged eighty-five. He had a son, Matthew, who commanded a ship carrying stores to Bermuda between the years 1670 and 1674 for whom William Fisher published *The Seaman's Companion,* a small work teaching arithmetic and navigation.

Lancelot Colson, an astrologer who practiced at the sign of the Royal Oak on Tower Hill, published an almanac or ephemeris from 1660 to 1676, and was then succeeded by his son, Nathaniel Colson, who compiled *The Mariners New Kalender* from 1677 onwards, printed continuously by William Fisher at 'Ye Postern Gate.' It contained the principles of arithmetic and geometry, times of high water, the sun's declination, traverse tables, etc., and a few astronomical problems. At the end of the book a chapter is given to sailing directions for the English Channel and a few of the principal ports. Next to the title-page there is a page containing a long list of books then being published and sold by William Fisher at 'The *Ancient* Shop by the Postern Row on Tower Hill,' including Nor-

wood's books already mentioned; an *Epitome of Navigation* by Henry Gellibrand (1597-1636), an eminent mathematician of his time; *The Seamen's Dictionary* by Sir Henry Mainwaring (twice Master of the Trinity House), first published in 1644 and still a standard work of reference for historical writers. The remainder included coasting pilots, sea charts and 'Waggoners'[1] for all parts of the world.

Under advertisements there is a brief notice that in Marsh Yard, a little below the Hermitage Stairs in Wapping, are taught mathematics, geometry and navigation, surveying and the use of the globes, as well as fortification and gunnery, by John Colson. Colson's *New Kalender* seems to have long been a standard work and was published by Fisher and his successors during the next hundred years, although enlarged a number of times until the year 1780 when it was revised and improved by William Mountaine, F.R.S. Soon after this date it seems to have ceased publication and may well have been superseded by more modern ones.

In 1671 John Seller, described as Hydrographer to the King, published a volume of charts and sailing directions for the coasts of England entitled *The English Pilot* and sold by the author at the 'Sign of the Mariner's Compass' at the Hermitage Stairs, Wapping. This was republished in 1677 and printed by John Darley for John Seller at the Hermitage Stairs, Wapping; William Fisher at the Postern Gate on Tower Hill; John Thornton at the Plat[2] in the Minories; John Colson in Marsh Yard in Wapping; and James Atkinson at Cherry Gardens Stairs in Redriff (Rotherhithe). It was a frequent practice in earlier times for such works to be published jointly by two or more printers and booksellers in order to share the initial cost and subsequent risk.

Further volumes were issued; the second was 'the Northern Navigation' from Scotland to Greenland, thence to Russia, Norway, Finland and the Baltic, and the North Sea from Denmark to Holland. Volume three contained 'The Oriental Navigation' and was said to be compiled from 'The Practice and Experience of divers able and expert navigators of our English Nation.' The prevailing winds are described and sailing directions for the outward and homeward voyage between England and the East Indies, and there are plans of principal ports and islands. The charts of special interest are 'The World' by Edward Wright and J. Thornton, which shows the known coast of Australia, the east coast being blank; the island of Bombay; Ceylon; the coast of Java, and Thornton's chart

[1] Waggoner or Pilot Book: anglicized form of the Dutch surname Waghenaer, by whom a book of sea charts was published in 1584, after which time books of charts came to be called Waggoners.

[2] Plat was an early name for a chart, and is derived from plan, something drawn to scale, so as to calculate distance.

of the north part of China and Cheesan, and the Straits of Singapore. Volume four included the sea coasts from Newfoundland to the Amazon River, with the West Indies, Jamaica, Barbadoes, etc. Volume five contains charts of the west coast of Africa from Gibraltar to the Cape of Good Hope, and the Atlantic Ocean from Newfoundland to Rio de la Plata. The sixth was a further 'Oriental Navigation,' the first edition of which was in 1701 and was published solely by Mount & Page.

John Seller is described as a publisher and seller of maps, charts and geographical books at the Hermitage, Wapping, and on the publication of volume one of *The English Pilot* in 1671 was given the title of Hydrographer to the King, but there is no reason to suppose that he was a surveyor or hydrographer in any other sense than a compiler and seller of charts. The above volume, for which he had the copyright for thirty years, is said to have contained maps and charts taken from the Dutch, with no acknowledgments, and in some instances the Dutch titles imperfectly erased and an English title with Seller's name substituted. He died in April 1697 being then described as of the parish of St. John's Wapping, Citizen and Merchant Taylor. After the usual bequest to the poor of the parish he directed that the money due to him from the Navy (possibly for the supply of charts) together with the proceeds of the sale of all his 'Shop goods, books, maps, charts, copies of books and copper plates of all sorts' were to be disposed of for the benefit of his widow and family. His eldest son, also John Seller, was a bookseller in Cheapside, and has sometimes been confused with John Seller, Sr. Mount & Page appear to have acquired his charts and copperplates as thereafter all the many future editions, improved upon and added to by later surveyors, were published by them.

Greenville Collins' *Great Britain's Coasting Pilot,* more particularly referred to later, was first published in 1693 and printed by Freeman Collins and sold by Richard Mount, but after the early years of the eighteenth century the further editions were printed and sold by Richard Mount and his successors. It is possible that Freeman Collins was related to the surveyor, but there is no evidence of it. Timperley[3] identifies him as the printer, in 1722, of *Collins' Weekly Journal,* which had formerly been called the *Loyal Observator,* a small weekly paper of current affairs, mainly political, but apart from this nothing is known of him.

William Fisher took into his establishment as an apprentice one Richard Mount; there is an entry in the books of the Stationers Company, London, which, like all the City Guilds registered all those apprenticed to

[3] *Dictionary of Printers and Printing* (1836).

their craft, under date 10 January 1669, of his being bound to William Fisher, Citizen and Stationer of London, and is described as the 'sonne of Ralph Mount late of Chislet in the County of Kent, Yeoman.' The family had probably been long established at Chislet, but the first known member is the above mentioned Ralph Mount, Yeoman and Householder who, on 31 January 1654, married Mary Court at Elmstead in the same county, and their eldest son, Richard, was born in November of the same year, and baptized on the sixteenth of the month at Elmstead. Ralph Mount died in 1668.

Like many another good apprentice Richard Mount married one of his master's daughters, the marriage being recorded as on 3 October 1682 to Sarah Fisher, daughter of William Fisher, Citizen and Stationer, and soon afterwards, about 1684, the name of the business was changed to R. Mount, but most probably it was still a partnership as William Fisher lived until the latter part of 1691, although for some long time before was mentioned as being 'very infirm.' At the time of his death William Fisher was described as an inhabitant within the Liberty of the Tower of London, Citizen and Stationer,' and he was buried in the Church of St. Katherine by the Tower.

William Fisher was survived by five daughters, Mary, the wife of one George Smith, Sarah, wife of Richard Mount, and Rebecca, Elizabeth and Susanna unmarried at the time of his death. He bequeathed 'to my son-in-law Richard Mount my house and shop wherein the said Richard Mount and I do dwell, and all the stock.' He owned land in Denham, Bucks; Walthamstow, Essex; and at Herne Hill and Hatcham in Kent, which was left in trust to Richard Mount, and reference is made to an arrangement whereby in addition to his bequests to his three unmarried daughters Richard Mount should pay each a hundred pounds annually.

It seems probable that William Fisher was a relative, possibly a brother of Captain Robert Fisher, an Elder Brother of Trinity House 1679-1714, Deputy Master 1687-1688 and Master 1699-1700, who died in 1714 at the very advanced age of ninety-one, but no clear evidence can be found. Both lived near Tower Hill; they owned land in Essex, William Fisher in Walthamstow and Robert Fisher in Shenfield. The latter's estate was bequeathed to, and is still in the possession of Trinity House; both were buried in the Church of St. Katherine. Furthermore, it was during Captain Robert Fisher's time that we find the first recorded notice of the association of the Printer and Stationer with the Trinity House.

Richard Mount was equally successful in his trade, became associated with prominent mathematicians and surveyors and published works

which were reprinted for many years. One of his more important and now more valuable publications was *Great Britain's Coasting Pilot,* a large folio of charts and sailing directions embracing the whole coast of Great Britain. This work was compiled from the surveys made by Greenville Collins, a Captain in the Royal Navy who later had a warrant as Hydrographer.

In 1681 Greenville Collins was appointed to the *Merlin* yacht, and ordered to survey and chart the coasts of the Kingdom. This work occupied the next seven years, the charts being published from time to time as each survey was completed. (Plate 29) It was not until 1693 that the charts were issued collectively in a large volume, together with sailing directions, under the title of *Great Britain's Coasting Pilot*. Not only were they a great advance on any charts hitherto published, but continued in use for upwards of a hundred years, a number of editions being printed, all by Mount & Page.

Greenville Collins was already a Younger Brother of Trinity House in 1681 when he started his surveys, which were made under the patronage of the Corporation and he agreed to submit his charts to their inspection before printing, and they subscribed a substantial sum to the cost of their first publication. Each chart was inscribed to some eminent person or persons; one of the earliest printed, in 1686, was to 'Samuel Pepys, Secretary to the Admiralty and Master of Trinity House.' (Plate 29) The year 1685-1686 was Samuel Pepys's second term as Master of Trinity House, the first being 1676-1677.

Richard Mount was now printing for the Trinity House and therefore it was natural that they should recommend Collins to him for the publication of a work to which they had subscribed financially. The first edition was published by Mount but printed by another; however, the subsequent editions indicate that they were printed by him and his successors.

Greenville Collins was given the title of Hydrographer to the Trinity House, and in the year 1693 was elected one of the Elder Brethren of the Corporation. At the time of his election he was in command of the *Mary* yacht, attending King William III on one of his frequent visits to Holland. Collins died in the following year and was buried at St. Margaret's, Westminster.

His charts had not, of course, the accuracy of those of later times but they were a great advance on anything before them. During the next hundred years several new editions were issued and were, no doubt, a steady source of revenue to successive generations of Mount & Page, and eventually a large number of copies must have been in use. Charnock in

his *Biographia Navalis,* of 1794, said of Collins that 'a large number of charts published by him are still deservedly held in high esteem.' Many of the volumes of his charts which survived after better ones came into use, such as the well-known 'blueback' and later those of the Admiralty, have since been broken up and the charts disposed of separately, mainly to collectors, and bound volumes now command a comparatively high price.

In or about the year 1700 Richard Mount took into partnership Thomas Page, a relative by marriage, and the name of the firm was changed to Mount & Page and thereafter with some variations hereafter noted, continued under those names for a hundred years through four generations of each, the two families uniting by marriages until both finally retired from the business.

It is reasonable to suppose that Thomas Page was another of the firm's apprentices, although there seems to be no record of his apprenticeship. A Thomas Page was made a Freeman of the Company of Stationers on 5 March 1715, being described as a servant of Mr. Richard Mount, a Warden of the Company, but this was probably a son of the above. Richard Mount speaks of him as his brother (brother-in-law) Page, but whether by marriage to one of the daughters of William Fisher or to a sister of Richard has not been possible to trace. Thomas Page's wife was named Elizabeth, the name of one of Fisher's unmarried daughters at the time of his death. On the other hand, Page owned land at Chislet, in Kent, which suggests that he may have come from that parish and have married into the Mount family. There is no evidence either way, but it was clearly one or the other.

Early in the eighteenth century the publication of *The English Pilot* came into the sole possession of Mount & Page and thereafter became their own publication. The several volumes ran through an unrecorded number of editions for the next hundred years during which time, together with Greenville Collins' *English Coasting Pilot,* published by the same House and at least in competition with volume one of *The English Pilot,* they remained the mariner's principal guide to the known parts of the world. Some volumes appear to have been reissued more frequently than others, due, no doubt, to the greater demand for some, particularly of the European and Mediterranean coasts, each new addition having additional information and surveys collected since the publication of the former. Few of the new editions were numbered and the only guide to reissues is the date on the title-page, but the fifth edition of volume five was in 1757 and the seventh—probably the last—in 1780.

In addition to these, Mount & Page published their *Atlas Maritimus*

Novus or *New Sea Atlas* in 1702 and a further edition in 1708. This contained a set of charts of the coasts of America from New England to Cape Horn and thence to Alaska. The volume was a more complete and comprehensive one for the navigation of the coasts of North and South America than had hitherto been produced, the map of the coast of New England (Plate 30) being a considerable advance on Nicolaus Visscher's map of the same of 1690. Together with their other publications they were now able to provide charts for any voyage and at once became the leading chart publishers in the country.

One of the more important books published during the early years of the partnership was *The Theory of Navigation,* by James Hodgson, F.R.S. The author was a mathematical teacher and friend of John Flamstead, the first Astronomer Royal, whose patronage Hodgson long enjoyed and, incidentally, married Flamstead's niece. For many years he was Master of the Royal School of Mathematics at Christ's Hospital, an appointment at that time made by the Trinity House who, under the charter of Charles II, were also charged with the duty of examining the mathematical scholars of Christ's Hospital School.

The Theory of Navigation, first published in 1706, was dedicated to 'H.R.H. George Prince of Denmark and Norway, etc., and Lord High Admiral of England, and designed for the use of the Gentlemen Volunteers on board the Royal Navy. . . .' The British Museum copy of this first edition is a fine example of the bookbinder's art, being bound in embossed leather engraved in gold. A note inside the cover records that this copy was bound for presentation to Prince George of Denmark, Consort of Queen Anne. The covers, in red and gold, have the letters P. G. surmounted by a crown, and the title-page states that it was made by 'Richard Mount and Company' in 1706. Bound with Hodgson's work and after the index to it, there is a *Table of Logarithms* with a note that they had been 'Examined with great care by J. H., F. R. S. and printed for John Sellers at The Hermitage Stairs, Wapping, in 1704.' This copy came to the British Museum with the library of King George III. This was evidently the first of a number of works by Hodgson, and he was also co-editor of Flamstead's *Atlas Celestis,* published in 1729, after Flamstead's death. Hodgson died 25 June 1755, aged 79 (one authority says 83) having been a Fellow of the Royal Society for fifty years and Master of the Mathematical School, Christ's Hospital, for forty-eight years.

Richard Mount's sons, William (born in 1688) and Fisher Mount, in due course entered the business, probably on completion of an indentured apprenticeship, as also did Thomas, the son of Thomas Page, and

although in general they continued to be known as Mount & Page there were variations as are indicated in the title-pages of various publications. We have seen that *The Theory of Navigation* was by Richard Mount & Company; other works a few years later were by R. Mount & T. Page, R. & W. Mount & T. Page, and R. Mount and T. Page & Sons.

Richard Mount became a prominent member of his craft; a freeman of the City of London, and elected Master of the Company of Stationers for three successive years, 1717 to 1719. In the craft this was a position of no little importance; the master was for the time being the head of the English publishing trades, and in those days when London life pulsated through its Guilds the office was the highest anyone in the trade could aspire to below that of an Alderman.

Some indication of the spirit of fellowship between the members of a Livery Company and readiness to assist those overtaken by a major misfortune is related by Timperley,[4] who records that when in the last years of the seventeenth century a certain William Bowyer, a printer at White Friars, London, had his home and printing office destroyed by fire, together with his 'founts of letters, presses and other utensils,' a subscription list was at once opened by the other London booksellers and printers to assist him to get back into business again, and over £250 was subscribed; not a large sum by present day values, but probably worth eight or ten times of what it would be today. The list is headed 'We Whose names are hereunto subscribed, not knowing how soon it may be our own case, do, out of compassion to him, give and contribute the following sums' and thereafter follows the names of over a hundred printers, bookbinders and engravers who subscribed with the amount of each, including Richard Mount.

A passing glimpse of Richard Mount is found in the quaintly worded mention of him by John Dunton who briefly characterized the principal booksellers, printers, stationers, and bookbinders who were his contemporaries, in which he says 'Mr. Mount is not only a moderate, but has a natural antipathy to excess; he hates hoarding either money or goods, and being a charitable man, values nothing but by the use of it, and has a great and tender love for truth. He deals chiefly in paper and sea books, and is a hearty friend to the present government. He was Master of the Stationers Company for three years, 1717-19, and gave the clock to their Court room.'

Dunton, born a few years after Richard Mount, was an eccentric bookseller, printer and miscellaneous writer. He was indentured to a London

[4] *Dictionary of Printers & Printing* (1836).

bookseller, and before the expiration of his apprenticeship had already made himself conspicuous in the great political dispute of his time. He was afterwards in business at the sign of the Black Raven, in Princess Street, London, and having married the daughter of a dissenting preacher, thereafter printed books which had a special appeal to the Puritans. One critic has described him as 'an abusive scribbler'; he was certainly a voluminous writer, and never at a loss for a subject. After a somewhat turbulent and erratic career he died in 1733 at the age of seventy-four.

Richard Mount died 29 June 1722, aged seventy, his death resulting from a fall from his horse when riding over London Bridge. He was buried in the Church of St. Katherine by the Tower, where his wife had been buried on 5 July 1717. In an age of extravagant and costly funerals he desired that his own should be inexpensive and attended only by his family and his brother Page, and that sixty pounds should be divided between his poorer relatives at Elmstead, instead of what might have been expended on his funeral.

His eldest son, William, inherited his house in Postern Row, the Nag's Head, an ancient hostel in the Postern Row, near the site of the old Gate, which survived down to the early years of the nineteenth century, several houses on Tower Hill, and a house in George Yard, at the back of Postern Row, together with the proceeds and profits of the Toll Bar there.

The right to a toll for passing through George Yard (tolls were common at this period) had evidently been granted to those who had undertaken the work of breaking through the massive City Wall at the eastern end of the Yard, whereby the first exit from the City of London (on Tower Hill) for vehicles was made, the old Postern Gate being only wide enough for pedestrians. The latter survived until about 1766 when an Act was passed for the removal of all the City Gates and with them those portions of the Wall which were an obstruction to the road improvements provided for in the Act, and it is probable that the toll gate and its fees were abolished at this time.

The break through the Wall is said to have been made during or soon after Cromwell's time, and it would seem that Richard Mount must have acquired the toll rights by purchase, possibly from the original owner who first breached the nine feet thick and thirty feet high wall by an archway, and it was not until half a century later that the wall there was finally broken down.

Richard's second son, Fisher Mount, who was a partner in the business, received one of his father's houses on Tower Hill, apparently the one in which he was living. Another son, John, who also had a share in the

business, received a substantial legacy; grandchildren and other relatives are remembered, and on the whole the apprentice of some fifty years before had had a prosperous career.

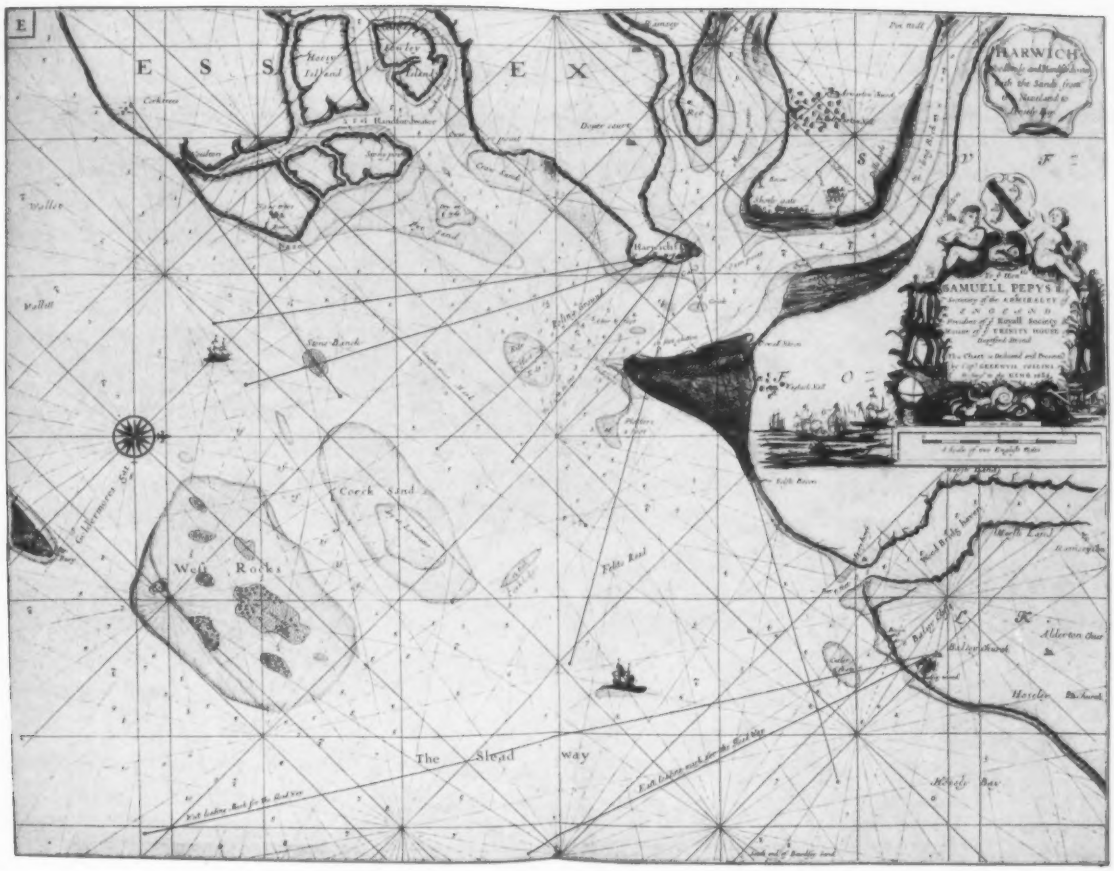
Thomas Page was now the senior partner and the name of the firm was accordingly changed, as the 1728 edition of Colson's *New Kalender* was printed by Thomas Page, William & Fisher Mount. Incidentally, the British Museum copy of the above edition had had hard service and is much sea-stained, and the inside cover has the crabbed signature of some old mariner who was resolved that his right to the book should be beyond question as under his signature, John Weatherbourne, he has added 'Bourt and Pay'd for, and His.'

Fisher Mount died towards the end of 1728 and thereafter his name was dropped from that of the firm which was carried on by Thomas Page and William Mount. At the time of his death Fisher Mount owned five of the houses in the somewhat limited Postern Row, including one then occupied by his brother William, and some fairly extensive farm land at Abingworth and Wooten in County Surrey.

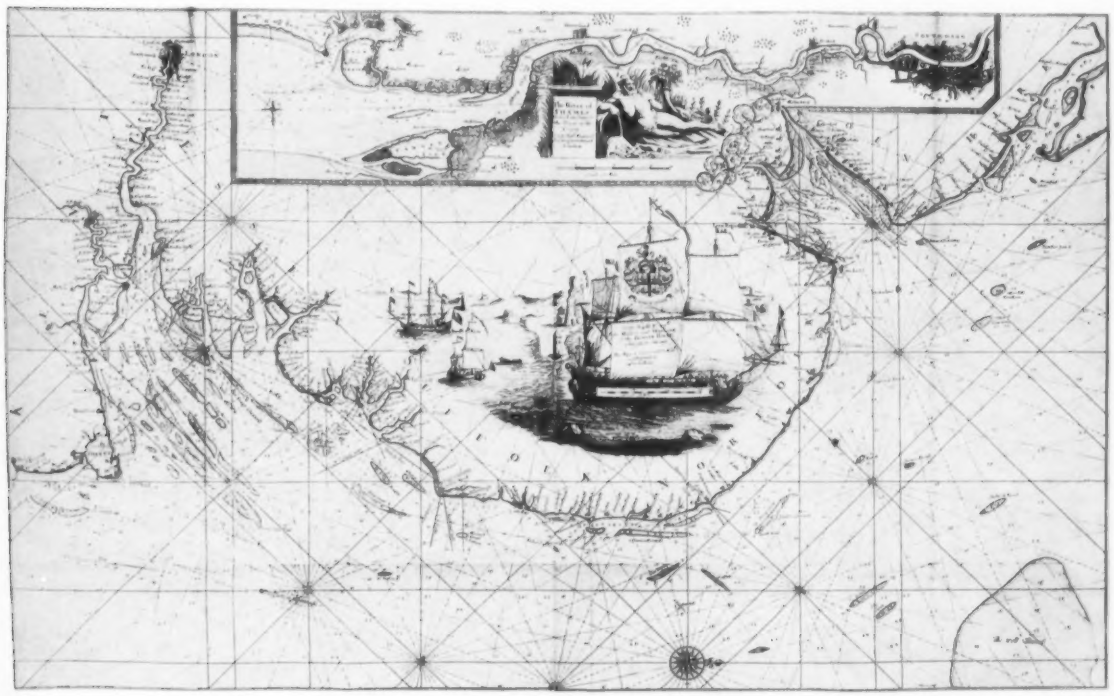
Thomas Page survived his original partner by eleven years and died 15 March 1733. He is described as of the Liberty of the Tower of London, Citizen and Stationer. His second wife, who survived him was Mary, daughter of Thomas Crompton, Citizen and Haberdasher, to whom he bequeathed his house on Tower Hill and his personal effects except his gold watch, gold-headed cane, and gold snuff box which were specially bequeathed to his son, Thomas, to whom also he left his property in Wapping and land at Elmstead, County Kent, as well as his share in the business on Tower Hill. A sum of money was left in trust to his son to administer for the benefit of his three daughters, Elizabeth Mount, Mary Foster, and Sarah Coggs. The name of the first of these indicates that she had married one of Richard Mount's sons, and so the relationship between the two families was continued into the next generation.

Thomas Page was succeeded by his son, Thomas, who had been bound apprentice to his father on 6 October 1718, at which time he was described as the son of Thomas Page, Citizen and Stationer. He took up the Freedom and Livery of the Stationers Company on 7 December 1725, which suggests an apprenticeship of seven years. Having succeeded his father, the business was now in the second generation of both Mount and Page, and William Mount being the senior partner the name was reversed from Page & Mount to Mount & Page.

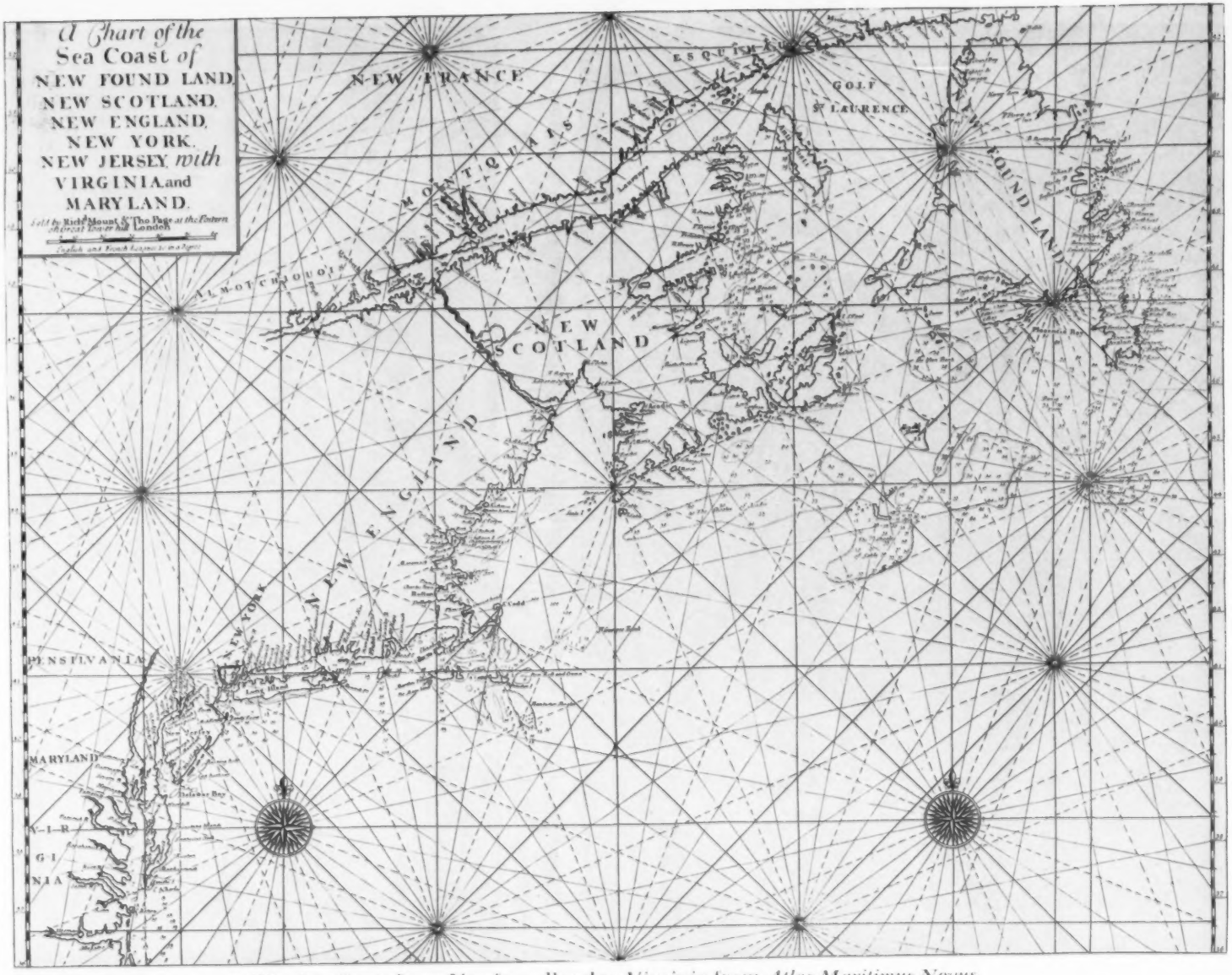
The house had grown in importance as it had long been printers to the Navy Office in near-by Seething Lane, as well as to the Transport



Grenville Collins' Chart of the approaches to Harwich Harbor, inscribed to Samuel Pepys, Esq., Secretary to the Admiralty and Master of Trinity House



Grenville Collins' Chart of the River Thames and the East Coast to the River Humber, inscribed to the Master and Wardens of Trinity House, and containing the Corporation's crest



The Sea Coast from Newfoundland to Virginia from *Atlas Maritimus Novus*,

Board whose office was in Black Raven Court, between Seething Lane and Tower Hill, and as near as can be judged on the site of the present Tower Hill Station. The latter department fluctuated in importance according to the incidence of peace and war. They were also the printers to the Office of the Receiver for Greenwich Hospital, then situated on the west side of Tower Hill, near the site of the Tower Hill corner of the north side of the present Byward Street.

An Act of Parliament of 1695 imposed a levy of sixpence a month from the wages of all seamen for the maintenance of the Seamen's Hospital at Greenwich. It applied to all seamen in H.M. Ships as well as in merchant ships and coasters, and included masters and owners navigating their own vessels. The Office of the Commissioners on Tower Hill was the general receiving office for the dues collected by agents in all the ports round the coast, as well as the Collector's Office for the Port of London, and was colloquially known as the 'Sixpenny Office'; it is mentioned by most historians of London in the eighteenth century. Following the Report of a Royal Commission in 1834 on the management of the Hospital, the system of contributions was considered to be out of date, and an Act was then passed to abolish the levy and payments ceased at the end of that year. Mount & Page and their successors were their printers for probably over a century and down to the time of closing the Office, and two receipt forms having the Commissioner's crest for dues paid by the masters of the ships of nearly a hundred and forty years ago have been found. (Plate 32)

William Mount was joined in the business by his younger brother, John, and for a few years, the name of the firm appears in printed books as William & John Mount and T. Page, but John evidently died at an early age as his name was afterwards dropped. William Mount not only succeeded his father as a master stationer but followed him in being elected Master of the Company of Stationers for three successive years, 1733 to 1735. He also took an active part in public affairs and was for many years Treasurer of St. Thomas's Hospital. Mount & Page became the printers to the Hospital, a connection which the firm still continues after two hundred years.

He married firstly, Mary, daughter of Thomas Huckell, of St. Martins-le-Grand (she died 26 June 1745) and secondly, at Allhallows in the Wall, London, on 20 March 1746, Elizabeth, daughter of John Girle, M.D., Surgeon of St. Thomas's Hospital. By his second wife, who survived him, he had no children, but by his first wife, besides three daughters, had a son, John, who in due course was apprenticed to the trade, as also

was the son, Thomas, of Thomas Page (II), both eventually becoming partners in the business and by 1757, according to contemporary books, the name was changed to W. & J. Mount and T. Page & Son. Thomas Page (III) had been bound apprentice to his father on 4 February 1745 and became a Freeman and Liveryman of the Stationers on 6 March 1753, again showing an apprenticeship of seven years.

Of the partnership in the second generation, Thomas Page died first, and is recorded as on 29 March 1762, being then described as 'an eminent Stationer on Tower Hill.' He had an ample estate and speaks of the farm land at Dorking which he had purchased of 'my worthy and honoured father-in-law, William Mount.' The land at Elmstead, in Kent, and the houses at Wapping now passed to the third generation of Thomas Pages, as well as three houses on Tower Hill. He mentions his newly built house on Clapham Common, which was bequeathed to his widow, Jane, with his furniture in town and country houses, his coach and horses, and to his son his stock and share in the business at Postern Gate.

He speaks of his worthy brother-in-law William Mount and sister Elizabeth, and cousins William and Ralph Mount at Elmstead, as well as his partners William and John Mount. He gave to James Davidson, bookbinder of Tower Hill 'who was my apprentice and a faithful servant all the interest and benefit of the policy of my life insurance'; to Davidson's daughter, Ann, a legacy 'as a mark of esteem I have for her father,' and hoped that Davidson 'would faithfully counsel' his family. As noted later, the Davidsons eventually became partners in the business.

William Mount died at Clapham 22 February 1769, aged eighty-one, and was buried in the family vault in the Church of St. Katherine by the Tower, the *Gentleman's Magazine* noting in their obituary list that he was 'eminent in works of charity,' and the same journal records the death of his wife at Clapham on 30 June 1785. He is described as of Clapham and Tower Hill, London, and apart from his estate at Cobham and elsewhere in County Surrey he owned six houses in Postern Row, several of which were in the occupation of his son John and other members of his family, and several houses in George Yard (which eventually became George Street), in one of which their faithful journeyman bookbinder and printer, and erstwhile apprentice James Davidson, was living. A handsome legacy to his daughter, Jane Page, widow, bespeaks a successful and prosperous life; his other estates and share in the business were left to his son, John.

In addition to their new works, and an increasing number of charts, Mount & Page had continued to print Colson's *New Kalender* through-

out these years until 1780 when as already noted, it was completely revised and improved by William Mountaine, F.R.S., but soon afterwards seems to have been discontinued. The above edition was published by 'John Mount & Thomas Page & William Mount, on Tower Hill,' and in it they still advertised those standard works published by them in the previous century. Their list of published charts had increased considerably, and the maritime expansion of the second half of the eighteenth century was no doubt reflected in an increased demand for their works, but this part of their activities, however, was soon to be given up.

They printed several works written by William Mountaine, including *The Sea Gunner's Companion* and a Mercator's chart showing the variation of the compass in all the then known seas, the publication of which was regarded at that time as a valuable aid to the navigator. Although his works are long since forgotten he was a well-known mathematician of his time and was elected a Fellow of the Royal Society in 1751. He was a Governor of St. Thomas's Hospital where, no doubt, he had a long and pleasant association with William Mount who was then its Treasurer; he was also for many years Mathematical Examiner of the Trinity House for the Royal Navy, where at that time all Masters in the Royal Navy were examined. He died 2 May 1779.

The business was now in the third generation of both Mounts and Pages. John Mount, the only son of William Mount, was born 24 July 1725, and before the death of his father had already, with Thomas Page (III), taken over control of the firm as the name appears as early as 1760 as John Mount & T. Page.

Apart from that inherited, he had already added to his estate elsewhere, and in 1760 bought the Wasing estate in Berkshire (the name is Walsinge in the Domesday Survey) and there built the present manor house which is still in the possession of his descendants. The house is near the ancient church the living of which has been the gift of successive Lords of the Manor, and it was at Wasing that some of the younger members of his family were born and baptized. In July 1748 he married Jane Fletcher of Cheapside, at the Church of St. Ann & Agnes, Aldergate, London. She died in 1772 and was buried in the family vault at St. Katherine's. His second wife, Christian, daughter of John Hyett, whom he married in 1773, came from Epsom, Surrey. He was made Sheriff of Berkshire in 1770, but does not appear to have sought office in the Stationers Company or in civic affairs in London.

His partner, Thomas Page (III), had also prospered, and acquired an estate at East Sheen, County Surrey as well as adding to his farm land at

Cobham and elsewhere in the same County. He died on 2 April 1781, the brief obituary notice in the *Gentleman's Magazine* being 'Thomas Page Esq., on Tower Hill, an eminent Stationer and partner with Mr. Mount.' He was buried at Bunhill Fields Burial Ground, which suggests that he was a member of the Society of Friends or Quakers, this having long been their special burial grounds. Bunhill Fields was first used in 1665 at the time of the Great Plague, but was soon afterwards acquired by the Quakers and remained their burial place until it was closed in 1852.

He desired that his son, Thomas (IV), should continue in his trade and leaves him his house on Tower Hill and his share in the business. He speaks of his uncle, John Mount, of Tower Hill, and of his cousin William Mount, and makes ample provision for his family. James Davidson, his father's former apprentice, probably now an important member of the staff, received a legacy of £100 and James Davidson, Jr. £50.

John Mount died on 12 July 1786 aged sixty-one, the current number of the *Gentleman's Magazine* noting it thus 'John Mount Esq. many years a very respectable stationer on Tower Hill,' and followed his forebears to the old church of St. Katherine by the Tower, but his remains and those of his two wives were subsequently removed to Wasing Church when, in 1825, the ancient church and hospital, together with the whole parish of some twelve hundred houses, were acquired under an Act of Parliament and swept away in order to build the present St. Katherine's Dock.

He is described as of Tower Hill, London, and Wasing Place, Berkshire. He left an even more ample estate than his partner, Thomas Page, and refers at length to his Wasing estate, his house at Epsom, farm land at Cobham and his several houses on Tower Hill. His wife inherited his share in the stationers business, its shop and warehouse, of which his son William was already a partner, and desired that his wife should be at liberty to live in his house there and to have all his furniture, plate, china, and glassware, and the wine in his wine vault there. He left a large family, all of whom were liberally provided for, as well as a legacy to his sister, Mrs. Page. James Davidson, still in their service, and his son James, for the third time are remembered by handsome benefactions, and there was a gift for each of his shopmen and porters.

This ended the third generation in the business of both the Mounts and the Pages; Richard, William and then John of the former, and of the latter all three named Thomas. As we have seen, in each generation the two families had intermarried, and therefore the establishment was

very much a family business. In the third generation the firm had evidently achieved a considerable measure of prosperity. The ever recurring wars no doubt created a demand for many more charts and nautical works, and greatly increased the stationery requirements of institutions closely connected with shipping, such as the Navy Office, the Transport Office and the Trinity House, whose business they had so long enjoyed.

It was in the last quarter of the eighteenth century that they appear to have given up the printing of sea charts. The reason for this is not quite clear, but seems to have been largely due to their own having been superseded by later surveys the publication of which was in the hands of others, notably of Robert Sayer who, with his successors, was established in Fleet Street for over a hundred years and is supposed to have been the business descendant of John Sellers, son of the John Sellers of Wapping, of the late seventeenth century who has already been referred to, although the continuity is vague and uncertain.

Sayer had secured the publishing of the North American surveys made by Captain James Cook, R.N. and, in 1777, the important survey of the St. George's Channel and of the west coast of Scotland made by Captain Joseph Huddart, as well as of his later surveys in the East Indies, which at once gave him a leading place amongst chart publishers. Robert Laurie succeeded Sayer in 1778 and continued the work, and afterwards with his son R. H. Laurie, was equally progressive, and during the succeeding years most of the lesser chart publishers were absorbed by two or three of the more influential ones who were thus able gradually to increase their catalogue of charts.

Coincident with the rise of Robert Sayer another firm of chart publishers was established under the sign of the 'Little Midshipman' in Leadenhall Street, which after fifty years passed into the hands of the celebrated mathematician John William Norie, in 1812. His *Nautical Tables* and *Epitome of Navigation* outdated all earlier works and no name has been more familiar to succeeding generations of British seamen.

At the same time a third firm, just established about 1760 which eventually became James Imray & Son, progressed steadily and was responsible for much enterprise in hydrography. The firms described above eventually joined together as Imray, Laurie, Norie & Wilson, a name always associated with the well-known blue-back charts.

In 1795 the government, having purchased a collection of charts from the East India Company, started the Hydrographic Department of the Admiralty, although for more than half a century to come the private chart publishers continued to compile their charts from information sup-

plied by the Lords Commissioners of the Admiralty, but during this time the work was principally in the hands of Imray, Laurie and of Norie.

This brief dissertation concerning chart production in the later years of the eighteenth century may possibly explain why Mount & Page gave up this side of their business. A 'Complete Set of New Charts, including the Mediterranean' published by J. Mount and T. Page in 1760 was followed by a more up-to-date set of 'Charts of our Sea Coasts' by William Mount & T. Page in 1785, which had a further edition soon afterwards. These, and their later editions of Greenville Collins' charts, which still found some favor, appear to have been the last they published.[5]

There are still many copies of their own charts and maps in private and library collections, worthy examples of the work of seventeenth- and eighteenth-century craftsmen, and their value is steadily increasing. At the same period they seem to have given up the publishing of nautical works, probably because more recent ones published by others had made their own out of date.

John Mount was succeeded by his son, William, and it will be remembered that Thomas Page (III) had desired that his son, Thomas, should follow him in the business which was there brought into the fourth generation of both families, and once more the name was varied, this time to William Mount & Thomas Page.

William Mount, who was born 3 January 1753, followed the example of his forbears in three generations by marrying a Page, thus cementing the two families in yet a fourth generation. His marriage is recorded as on 4 October 1781 to Jenny, daughter of Thomas Page of Tower Hill, London, and East Sheen, County Surrey. Apparently she was so young that a note was made in the church register to show that 'Jenny, being a minor, had married with the consent of her Mother and testamentary guardian, Sarah Page. . . .' As already noted, her father had died in April of the above year.

The business, now in the fourth generation of both Mount and Page [William Mount and Thomas Page (IV)], was to be the last of both. Thomas Page died in 1797, evidently at an early age and left no descendants, so William Mount then took into partnership one of their former apprentices, James Davidson, the younger.

James Davidson, the elder, the apprentice of William Mount's grandfather and great-uncle Page, seems to have retired some time before, because when he died in 1791 he was described as of Marsh Street, Waltham-

[5] However, for long afterwards they continued as agents for others as on a billhead of 1836, still extant, when under the name of their successors, they are shown as sellers of charts and navigation books.

stow, County Essex. He left a modest estate to his widow and large family, and mourning rings (a common form of bequest to friends in the seventeenth and eighteenth centuries) to more than a dozen members of the Mounts and Pages.

James Davidson, the younger, had no doubt been apprenticed to the firm and had continued in their employ, and when William Mount took him into partnership the name was changed to Mount & Davidson. William Mount retired in or about the year 1800 and this ended the long association in business of both Mounts and Pages. The changing character of the business and its departure from traditional interests, already referred to, as well as the end of the association in business with the Pages and possibly the increasing preoccupation with his Berkshire estate, may have combined to occasion his retirement from the old family house on Tower Hill.

William Mount died 15 June 1815, in his sixty-third year, but his widow, Jenny, the youthful bride of 1781, survived him by many years and died in October 1845. At his death he still owned some property around Tower Hill, evidently parts of George Street and Postern Row, both of which have since been swept away.

Although no longer connected with the establishment on Tower Hill, it may be of interest to add that he was succeeded in the Wasing estate by his eldest son, William, who was M. P. for constituencies, in the Isle of Wight, whose descendants bring the family down to the present century, still in possession of Wasing Manor, the successive members having closely identified themselves with Berkshire affairs. William and Jenny Mount had, besides the son, William, mentioned above, four daughters the eldest of whom, Caroline Jane, was the grandmother of Sir Michael Hicks-Beach, afterwards first Earl of St. Aldwyn, statesman, and sometime Chancellor of the Exchequer. A member of the Mount family in the present generation is a freeman of the Stationers Company, thus continuing the family association with the craft for over two hundred and fifty years.

When William Mount retired the name of the firm appeared for a brief time simply as James Davidson, but he soon afterwards took two others into partnership who, in such an essentially family concern were probably their former apprentices, and the name was changed to Davidson, Smith & Venner. James Davidson, however, died very soon afterwards (in 1801), and his name was at once removed, as in June 1802 they appear in printed works as Smith & Venner. James Davidson, like his former principals, had prospered, and years of care and industry had enabled him

to leave nearly ten thousand pounds to his widow and several sons and a daughter, a very comfortable estate for that period.

By November 1803 Venner had left the business and until 1817 it was under the name of Samuel Smith when it became S. & F. Smith, probably through Samuel Smith having taken a son into partnership. Five years later in July 1824 it was changed to S. Smith & Co., and finally in December 1826 when Samuel Smith was joined by Samuel and Henry Ebbs it became Smith & Ebbs. Under these proprietors the family tradition was maintained for two or three generations; Henry Ebbs was succeeded by his nephews Sydney and Alfred Ebbs, and when both families had died out it became, in December 1900, a limited company as Smith & Ebbs Ltd., and may well continue as this for generations to come. This long and unbroken record is no ordinary one even in a city which has many old established houses, but the firm is unique in that the business was carried on in the same place for well over two hundred years.

At the house in Postern Row some eight or ten generations including four of the Mounts and Pages had carried on a business which had played perhaps a small but not unimportant part in the maritime life of the city. From this house they had witnessed all the historical events which had happened on Tower Hill from the reign of Charles II down almost to our own time. Samuel Pepys, who lived nearby, no doubt came to their shop from time to time in search of nautical works which he was constantly adding to his library, and explorers and circumnavigators seeking advice in getting their charts and maps engraved.

In early times the house would almost certainly have been both residence and workshop, their apprentices living there with their masters, in accordance with the custom of those times, and only in a later period would it have become business premises only. In the seventeenth and eighteenth centuries the address was always 'The Postern, Tower Hill,' but early in the nineteenth century when London Directories became more complete and precise, Smith & Ebbs's address is shown as 5, Postern Row and 22, George Street, showing that with the growth of business they had added to their premises by acquiring those in George Street which backed on to their original ones. In 1820 London Directory S. & F. Smith are described as Printers, Stationers, and Quill Dealers. The cutting of quill pens gradually became highly specialized and was at the zenith of its development about this time, which also coincided with the invention of the steel pen nib.

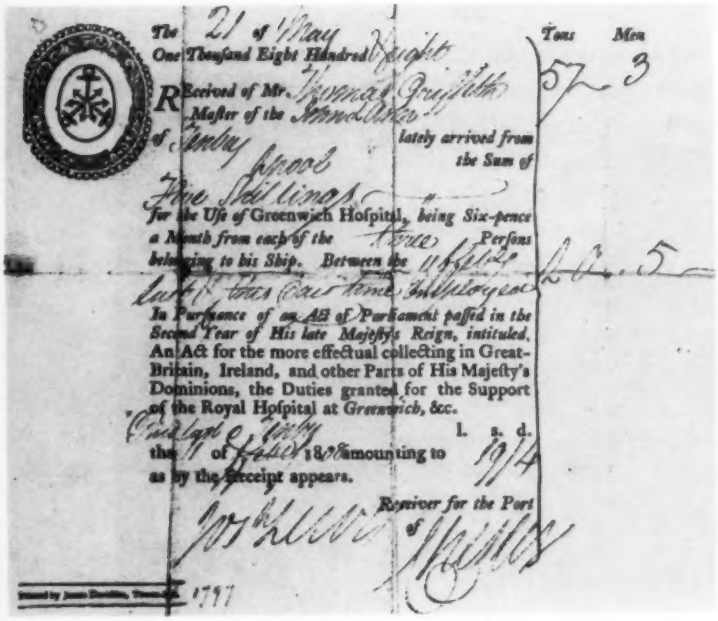
Despite the nature of their business and inflammable stock, they long escaped the ever present enemy, fire, which destroyed so many old estab-

Tower Hill, London, from the eastward, in the early nineteenth century, showing Postern Row and the railing along the Tower Moat at the left and the eastern end of George Street in the foreground

Reproduced through the courtesy of the Port of London Authority

Tower Hill, London, from the westward, in the early nineteenth century, showing Postern Row on the extreme left

Reproduced through the courtesy of the Bishopsgate Institute, London



The 21 of May One Thousand Eight Hundred Eight

Tons 57 Men 3

Received of Mr. Thomas Griffiths Master of the Ann Packet of Amlwch lately arrived from the Port of Chester the Sum of Five Shillings for the Use of Greenwich Hospital, being Six-pence a Month from each of the Three Persons belonging to his Ship. Between the 18th Feb. and 1st inst. Dues Outwards Inwards Employed

£ 0. 5

In Pursuance of an Act of Parliament passed in the Second Year of His late Majesty's Reign, intituled, An Act for the more effectual collecting in Great-Britain, Ireland, and other Parts of His Majesty's Dominions, the Duties granted for the Support of the Royal Hospital at Greenwich, &c.

Outward Coasting Voyage

l. s. d.

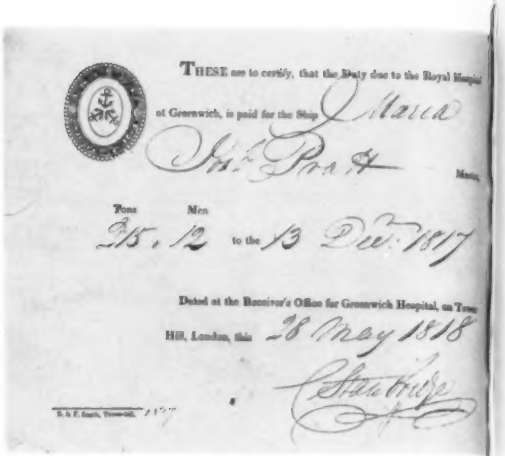
the 11 of Feby 1808 amounting to 1 9 1/4

as by the Receipt appears.

Receiver for the Port of Chester

Printed by James Bradshaw, Thames St. 1797

Receipt dated 21 May 1808 issued by the Receiver at the Port of Chester



THESE are to certify, that the Duty due to the Royal Hospital at Greenwich, is paid for the Ship Maria

Stk Pratt Master

Tons 25. 12 Men to the 13 Dec. 1817

Dated at the Receiver's Office for Greenwich Hospital, on Tower Hill, London, this 28 May 1818

Modified form of receipt in use a few years later issued at London

Receipts issued by the Receiver of the Dues for Greenwich Hospital. The Commissioners' Office was on Tower Hill and Smith and Ebbs and their predecessors were their printers.

1886
Mr SYDNEY EBBS AND Mr ALFRED B. EBBS
request the pleasure of
's Company
TO DINNER AT GEORGE STREET, TOWER HILL
on Tuesday, 19th January at 6 o'clock,
to bid farewell to the Premises about to be pulled down for City Improvements
where the business of Printing and Stationery has been carried on for
OVER 200 YEARS.
Genealogy of the Firm.
Richard Mount, 1686
Mount & Page, 1701
Page & Mount, 1728
James Davidson Oct 1797
Mount & Davidson, 1799
Davidson Smith & Venner Aug 1801
Smith & Venner June 1812
Samuel Smith, Nov 1815
S. & F. Smith March 1817
S. Smith & Co July 1824
Smith & Ebbs, Dec 1826.
R.S.V.P.

Invitation of Messrs. Ebbs to dinner on 19 January 1886 to mark the occasion of their firm leaving the house it had occupied for over two hundred years

The center picture is of the Postern Row shop, and the left and right view are of the George Street entrance, seen from the west and east ends of the street respectively.

lished houses down through the centuries. An extensive fire on the east side of Tower Hill in the early years of the nineteenth century seems to have missed George Street and Postern Row, although the damage immediately northward of them was very extensive. They were, however, not to escape completely, and had a fire at their premises in 1880. It does not appear that very much damage was done, although the Tower Guard was called out to control the crowd of people gathered there; nevertheless, on these occasions the loss of papers and books of historical interest is often overlooked.

When the Tower Bridge was proposed and the wide approach road first mooted, it was at once evident that the old Postern Row would have to be cleared away. So narrow, in fact, was the roadway there, that a reasonable width could only be obtained by clearing away the south side of George Street as well. Other improvements were needed and no doubt the old houses had long outlived their usefulness.

In view of the inevitable clearance, and probably to obtain better premises, Messrs. Smith & Ebbs decided in 1886 to leave Postern Row and removed to No. 14, Northumberland Alley, between Crutched Friars and Fenchurch Street, and there they continued until 1927 when they moved to their present and larger building at Nos. 1-7 in the same street. These buildings are on the site of the London house of the Earls of Northumberland until the sixteenth century, some parts of the foundations of which were discovered about a hundred years ago.

To mark the occasion of leaving the Postern Row after over two hundred years Smith & Ebbs invited their friends and clients to a farewell dinner at their old premises. A copy of their invitation of over sixty years ago has fortunately survived; in addition to giving some of the variation in the names of the proprietors from the time of Richard Mount down to Smith & Ebbs, it includes three pictures of their old premises, the centre one being the Postern Row house, and on each side the George Street premises seen from the west and east end of the street. (Plate 32)

A collection of the countless notices, proclamations, etc., printed by the firm for the Trinity House through the centuries would be of great historical interest, touching as they would on events of considerable importance at the time although long since forgotten. Most of the Corporation's minute books were made by them; they are almost complete for nearly three hundred years and are still in excellent condition, a lasting tribute to the skill of bygone craftsmen.

Until the destruction of the Trinity House by enemy air raid the Corporation possessed several of the more interesting notices and proclama-

tions printed by Mount & Page, and by their successors during the long wars ending with the Napoleonic period, as well as some of an earlier date, the oldest being one by Richard Mount dated 1699, but these have been lost; however, one notice dated 1710 has survived, as well as several early nineteenth-century Notices to Mariners concerning coast lights, which include a small chart and sailing directions for the locality.

Before the existence of H.M. Stationery Office, which now does most of the printing and bookbinding for the Public Services, the volume of work done by the firm was larger than at present, but much of importance is still in their hands, a notable item being the printing of the Trinity House Notice to Mariners, familiar to all seamen visiting United Kingdom ports. By reason of long experience and specialized knowledge the firm is able to produce these at such short notice that they are often in the post to all ports in the country within a few hours of the change having been made to the light or seamark to which they relate.

The printing for the Trinity House is the last surviving connection with the maritime life of the city, of a firm which once played a more important part, but by reason of altered conditions gradually changed over to commercial work, although retaining this one link with the sea services whom they had served so usefully for many generations.

This ends the account of the proprietors of a house having a continuity of three hundred years or more, during two hundred and fifty of which they have maintained their connection with the Trinity House. In what is often described as the bad old days we have a glimpse of a young apprentice coming up from the country, marrying his master's daughter and inheriting the business, prospering, and leaving more to his successors; of lifelong service by staff who not only had a pride in their craft but earned the regard and friendship of their employers. A pleasant association of ownership by two families through four generations over a period of a hundred years, further united in successive generations by marriage; of much service to charities and eventually to county affairs, then leaving their business to be carried on by former faithful employees, and finally, under modern conditions to become a limited company, but carrying on the traditions which only long service can create.

Notes

Flying Cloud VERSUS *Andrew Jackson*

Your readers doubtless have had enough in years past of the perennial *Flying Cloud–Andrew Jackson* debate. If, therefore, I refer to Mr. Lyman's note on the subject in the NEPTUNE for October 1947, in which he comments on my early position in the matter, it is not to renew that dispute, but to take his comment as the text for a slender dissertation on the evidential value of logs—a point which I have long felt would be the better for discussion.

The question which happens to be involved is merely incidental and relatively unimportant. It is simply whether the *Jackson's* best passage from the New York to the San Francisco pilot grounds was shorter than the *Cloud's*. There never has been any question but what the *Cloud* holds the record for the anchor to anchor run. Mr. Lyman has said, in effect, that the *Cloud's* log clearly proves that she was the winner in both cases. I am reluctant to disagree, the more so because he has discussed the matter very considerately and, so far as he has gone, fairly, but I cannot escape the conclusion that it does nothing of the sort.

When I first examined the logs of both ships at the Weather Bureau, in Washington, nearly twenty years ago, I reached that decision. After reading Mr. Lyman's remarks, I again referred to my notes. Finding nothing in them to affect my early opinion, I decided to secure a copy of the *Cloud's* log on the chance that I had overlooked some important entry. A comparison showed, however, that my original notes contained complete transcripts of all relevant entries. Nevertheless, I continued to give the matter such further consideration as time permitted, since I preferred to agree with Mr. Lyman if I could see my way to do so, rather than remain in uncertainty.

In the end I was driven back on my earlier conclusion—that the logs alone, whether taken together or separately, failed to furnish the clear proof asserted for them. For the critical hours of sailing and arrival, both are lacking in precise, definite, circumstantial statements which would enable us to fix the position of either ship during those times with any degree of certainty. Try it, and for every navigator you would get to go into court and swear to one position, you would find another to swear the ship was probably somewhere else.

Moreover—and this is a material consideration which can hardly be over-emphasized—all the times set down in the logs for those critical periods must be regarded as affected with a margin of error which may be considerable and which is now unascertainable. If this seems heresy to some, it is none the less a fact, and a most important one. Every old sailing-master was aware of it. They knew that while logs were reasonably accurate within practical limits, the actual times entered during sailing and arrival dates were peculiarly suspect. On those occasions everyone was strenuously and continuously engaged for long periods, and mates had no choice but to write up their logs from memory and by guess, long after the events. There may have been exceptions, but I do not recall a log among the thousands I have read, which did not bear internal evidence of this state of things. Take the logs in question. Everything of importance is recorded as happening precisely on the hour. Not twenty minutes of or ten past, but on stroke of clock. Everyone knows that things didn't happen that way on the old ships. I have heard retired captains ridicule the assertion that a shipmaster could tell the actual, point to point, time of his passage from his log,

within the limits of an hour or two. Admiralty Courts should know, but they have never accepted logs as furnishing conclusive proof, but as evidential only, to be explained, qualified, supported or disproved by extrinsic evidence.

Mr. Lyman, although asserting that the log of the *Cloud* is, by itself, clear and sufficient proof, nevertheless resorts to assumption and assertion. His assumptions may be correct, but at the moment it is doubtful whether they can be proved. Thus, he assumes that the *Cloud* took her pilot after reaching the pilot grounds, whereas it is perhaps equally possible that the pilot ran far out to meet her while she was slowly drifting in with the light breeze mentioned in her log. Either way, the assumption has a critical bearing on the probable time she reached the pilot grounds—one of the most important points at issue. Since it is an assumption, it should be indicated as a possibility or probability, rather than as a proven fact. He also says the ship 'presumably' anchored off the city at 8.00 P. M., but the log does not say so. Cressy may have considered his voyage at an end when he began to shorten sail on the pilot ground or when he reached the bar, as many a shipmaster did. There were other assumptions made involving both ships which may be correct, but they are not proved by the logs.

Satisfactory external evidence is equally lacking. Finding myself confronted some years ago with the above indicated situation, I followed the practice of Admiralty and endeavored to get in other evidence. The search proved inconclusive. There was the fact, indeed, that Captain Williams had always maintained that his run to the pilot grounds was slightly shorter than the *Cloud's,* and that, so far as I could discover, it had never been disputed by Captain Cressy. It was a negative fact, but it had to be considered in view of Williams' undoubted opportunities to secure more precise information from pilots and other observant witnesses, regarding the actual length of the *Cloud's* run than is now available. With this possibility in mind, I did not feel justified in impugning Williams' good faith by brushing his claim aside on the existing evidence, preferring rather to accept it tentatively, and hope for further light.

My search extended much further, but in all the years no letters, diaries or other contemporary evidence has turned up. Newspapers were of little help, quite aside from the fact that no responsible person would accept their statements as to exact times, as evidence, although they might be assigned more weight if accompanied by sufficient circumstantial details. No such circumstantial reports, however, appeared in either the New York or San Francisco papers. Most of the San Francisco papers carried just a line to the effect that the *Cloud* 'arrived last night' or 'during the night.' One paper only stated that she arrived at 8.00 P. M. without giving details. There is also the fact that the paper which normally reported inbound and outbound ships in sight at sunset, failed to report any inbound vessels although reporting one outward bound. It suggests the possibility that at that late hour the *Cloud* was still out of sight at sea, but this, too, is negative and inconclusive.

Finally, may I say that I do not question Mr. Lyman's title to his opinion. Even less do I question the possibility that that opinion may be a good one, or that it may eventually be proved correct. My only essential contention is that the case is still in the opinion stage, and that the *Cloud's* log does not present the clear and conclusive proof necessary to remove it from that status. On the contrary, it contains hardly a relevant statement which cannot be interpreted intelligently and in good faith in more ways than one.

CARL C. CUTLER

New Light on *Flying Cloud* versus *Andrew Jackson*

Mr. Cutler's suggestion that collateral evidence is required to support the ab-

stract log of *Flying Cloud* now in the National Archives sent me back to the files of the San Francisco *Daily Alta Californian*, which is probably the best California newspaper of its period (many years after it suspended, a fine four-masted barkentine was named in its memory). From the issue of Friday, 21 April 1854, I quote the following extracts:

'MEMORANDA. Per *Flying Cloud*. Got under way at 12 o'clock, noon, the 21st of Jan., at the foot of Maiden Lane, and discharged pilot at 6 P.M., off the lightship, and anchored at San Francisco 20th April, at 8 o'clock, P.M., after a passage of 89 days, 8 hours from anchorage to anchorage.'

'(By Telegraph). Point Lobos, 10 P.M. —Weather thick. Wind fresh from the SW. At sunset a large clipper ship 20 miles to the westward, with a signal set for a pilot. Blowing very heavy from the SSW at the time.'

Far from there being a light breeze, therefore, the coast was being lashed by a regular winter rainstorm; and *Flying Cloud* was within 20 miles of Point Lobos, or well on the pilot ground, before she took her pilot.

Now some extracts from the *Alta* of 25 March 1860:

'SHORTEST PASSAGE ON RECORD FROM NEW YORK; THE "FLYING CLOUD BEATEN"; Arrival of the clipper ship *Andrew Jackson*.

'The clipper ship *Andrew Jackson*, Captain Williams, from New York, arrived yesterday afternoon in the unprecedented time of eighty-nine days and seven hours, beating the quickest voyage of the clipper ship *Flying Cloud*, Capt. Cressy, six hours. The *Flying Cloud* made two voyages to this port which were never equaled until this one of the *Andrew Jackson*. Her first short passage was 89 days and 23 hours, and the second one in 89 days and 13 hours, and now the *Andrew Jackson* beats her shortest voyage some six hours . . .'

'MEMORANDA. Per *Andrew Jackson*. Was 20½ days to the Equator in the Atlantic; 22½ thence to Cape Horn; was off the Cape 10 days with calms for three days; 20 days thence to the Equator in the Pacific; crossed March 8th in long. 113 W; had moderate breezes all through the south latitudes; had strong trades up to lat. 24 N; then baffling winds; have been off this port two days.'

She must have been a long way off, as the Point Lobos lookout reported no inward bound vessels in sight at sundown of the twenty-third. Note also that the date of sailing from New York was not mentioned in Captain Williams' memorandum. This omission was noticed in San Francisco at the time, for in the *Alta* of 29 March the following letter from 'E.F.S.' was printed on page one:

'Shortest Time on Record From New York. The "Flying Cloud" Not Beaten.

'EDITORS ALTA: I noticed an article in your paper of the 25th instant, stating that the clipper ship *Andrew Jackson*, Capt. Williams, had arrived the day previous, in eighty nine days and seven hours from New York, making the best passage on record, and beating the quickest voyage of the *Flying Cloud* by six hours.

'I have waited patiently to the present time, hoping to see in your columns a detailed statement of this unprecedented voyage. Thus far, I have been disappointed in my expectations, and am still at a loss to know whether the time has been reckoned from anchorage to anchorage, pilot to pilot, or from the last sight of Sandy Hook to the first view of the Farallones.

'In absence of such statement, I now beg to claim for Capt. J. P. Cressy, and the ship *Flying Cloud*, the credit of having made the best passage on record between New York and this port, in the year 1854, in eighty-nine days and eight hours, her anchor having been weighed off the foot of Maiden Lane at 12 M., January 21st, and dropped in San Francisco harbor at 8 P.M., April 20th, making the actual time from anchorage to anchorage eighty-nine days and eight hours. . . .

'I have made no request to be per-

mitted to look at the log of the *Andrew Jackson* as I understood such favor has been refused to others. I have no personal acquaintance with Capt. Williams, but judging from what I hear of that gentleman, I cannot believe he would wish to appropriate to himself the honor awarded him by your article, without having fairly earned it . . . .'

The *Alta's* editor took his time, but he was a conscientious reporter. His decision in the matter appeared over a week later, on 6 April, in a story that took fourteen inches of agate type. After mentioning that passages might be figured on an anchor-to-anchor, pilot-to-pilot, or land-to-land basis, he chose pilot-to-pilot time as best representative of the performance of a sailing vessel. On this basis he computed *Flying Cloud's* time as 88 days 17 hours, and the *Andrew Jackson's* as 89 days 20 hours. Then (referring to Captain Williams):

'He weighed anchor in New York Harbor (so he informs us personally,) on the morning of the 25th of December, and discharged his pilot at noon. He took his San Francisco pilot at eight o'clock on the morning of March 24th, and anchored in the harbor that evening at six o'clock.

'The *Jackson* made the land at the Heads on the afternoon of the 23d, and was provokingly becalmed in plain sight of the port all the rest of that day and the next night, and when she took her pilot on board the following morning, she was still becalmed, and it took her all day to fan lazily into the harbor. An examination of her log shows that she made better time between the equator in the Atlantic and the equator in the Pacific, (the great part of the passage to California) than was ever done before. On the whole the passage of the *Jackson* is the quickest achievement of the two, when we consider that she is not a full clipper.

'But there is that other splendid passage made by the *Flying Cloud*. She arrived here August 31st, 1851, on her first voyage, in 89 days and 23 hours. Whether "from pilot to pilot" this time, or "from anchorage to anchorage," the memoranda [*sic*] does not state. If the latter, then the passage must also be placed in advance of that made by the *Andrew Jackson;* but if "from pilot to pilot," the *Jackson's* is the second best time on record. And thus taking into consideration these two passages of the *Flying Cloud*, she stands yet unparalleled in the list of California clippers.'

JOHN LYMAN

Old Light on the New Light

Mr. Lyman's reply to my comment on the *Cloud-Jackson* (and perhaps my own comment, as well) indicates the futility of debating a dispute where the only evidence available is indefinite and conflicting. He seems, indeed, to have waived, at least for purposes of argument, his former contention that the log of the *Cloud* furnished, in itself, clear and conclusive proof. As this was the point I wished to make, I should, perhaps, be satisfied.

However, he goes on to bolster his opinion by citing contemporary San Francisco newspaper reports, which I had found insufficient, as being not only vague and inconclusive as to times, but as actually in disagreement among themselves, and therefore without any very substantial rating as 'proof,' however wishfully one might interpret their statements as evidence. That, of course, is quite within his right as an individual, always assuming that proper use of the material. Unfortunately—and I believe quite unintentionally—in the rush of composition, he has overstepped in some degree the bounds of justifiable comment.

Thus, he uses the weather report from the *Daily Alta Californian* of 21 April 1854, to the effect that it was blowing 'very heavy from the SSW' at sunset, to cast doubt on my conclusion that the *Cloud* was coming in slowly with a light wind that afternoon. His comment was: 'Far from there being a light breeze

therefore, the coast was being lashed by a regular winter rainstorm.' One must judge the fairness of this comment in view of the fact that Cressy's own log stated that his wind was light, and that according to his own reckoning, it took him six hours to cover the few miles between his noon position and the pilot.

It is a matter of common knowledge that winds change and that calms are often followed by sudden gales, and there is no excuse here for the suggestion that the *Cloud* was driving in all during the afternoon before a heavy gale, and that I was, therefore, guilty of making a misleading statement.

Then there are the definite contradictions in the various San Francisco papers. Both the *Daily Herald* and the *Daily California Chronicle* for 21 April 1854 report the wind fresh from the *southeast* (not the south-southwest) at sunset, and neither report any inbound ships in sight, although they commonly did so. This is very different from the *Alta Californian's* report, and if true would give the *Cloud* a much less favorable wind at that hour. It also may suggest that the *Alta's* observation was made later, and possibly considerably later in the evening, a circumstance which would have a most important bearing on the exact time the *Cloud* arrived on the pilot grounds. The term 'sunset' indeed has a precise scientific significance, but to assume that the casual pioneer reporter used it in any but a loose, general sense, puts an undue strain on one's credulity. The simple fact is that, aside from being contradictory, the evidence of the San Francisco papers is 'hearsay' in final analysis, and completely inconclusive at best, which is why I did not give it more serious consideration in the first place.

I have no quarrel with the suggestion that Williams refused certain persons permission to examine his log. He may indeed have refused such permission to a personally objectionable reporter, or even to a most worthy member of the profession, if the request came at an inconvient moment. The point which should have been equally stressed, however, is that the log does not contain a single entry which could in any way affect the *Jackson's* claim unfavorably. Whatever Williams' reason could have been if he did withhold his log, it could not have been apprehension. Mr. Lyman also repeats the statement that the *Jackson's* date of sailing from New York was in doubt. If he had stopped to reflect he would have seen that that was equivalent to saying that San Francisco did not get the New York papers. The *Jackson's* sailing date was well known, but the fact that some supporters of the *Cloud* made the statement indicates the reckless and irresponsible character of much of the so-called 'contemporary evidence.'

He also refers to the fact that no ship was reported in sight the evening of 23 March 1860, when the *Jackson* claimed her arrival off the port. This may have been due to poor visibility, of which there is some evidence. Williams' log reports baffling rain squalls, and it takes little to render a ship invisible at a distance of three or four miles. Such weather would also explain why no pilots were available. These are, of course, things on which one can only speculate now, but if we are going to speculate at all, let's do it sailor fashion and not arm-chair style.

The long statement quoted by Mr. Lyman from the *Alta Californian* of 6 April is a very fair analysis, apparently, but it considers the matter only from the 'pilot-to-pilot' aspect. We have been considering only the 'pilot ground-to-pilot ground' question. There has never been any contention that the *Cloud* did not hold the 'pilot-to-pilot' record, as well as the 'anchor-to-anchor' record. We are concerned only with the actual sailing passage from the New York to the San Francisco grounds. On this, we have the logs which are too vague and too much affected with inaccuracies as to times to be decisive. For the rest we have conflicting newspaper reports and the bare unsupported assertions of the champions of the two ships, some of

which at least contain their own internal evidence of having been made in a reckless and irresponsible manner. There is little point in trying to interpret pioneer conditions in present-day terms. You are dealing with rough and ready stuff and you need bare knuckles.

CARL C. CUTLER

A Grain Race of 1891

R. D. Rice, 2247 tons, was built at Thomaston in 1883—the last square-rigger built by Samuel Watts. Next to Edward O'Brien's last *Edward O'Brien,* 2271 tons, built in 1882, she was the largest ship launched at that town.

Mr. John Masefield in acknowledging receipt of a photograph of the *Rice,* wrote, 'Though I cannot recollect her, I saw the *R. D. Rice,* or her masts, during half my first term in the Mersey. She was, as you know, a very famous ship. In May, 1891, she, and the American ship *Henry B. Hyde,* and the English ship *Dawpool,* all laden with grain, sailed together from San Francisco for Liverpool, and each Captain backed himself to get there first, and took steps to win. Well, the *R. D. Rice* easily won the race, and the *H. B. Hyde* came in four days after her, and the *Dawpool* last, pretty nearly a wreck from a disastrous night off the Horn. When the *Dawpool* tried to dock, the crews of the *Rice* and *Hyde* went down to the dock gates to man the capstans. It was a fine Sunday morning, and all those 60 or 70 men hove her to her berth singing; and old seamen say that it was one of the most stirring things ever known in Liverpool. It was a fine thing to have done, and with a little more luck, I should have heard them and could have told you about it.'

'The English ship *Dawpool* was named after her owner's home. She was built about 1880 by Harland & Wolff at Belfast. I remember her well. She was about 1700 tons; no great shakes for looks, but a good strong carrier, and pretty heavily sparred, with a main-yard 87 feet long, and great single topgallant sails. She was fully rigged. I met years ago a man who was in her during the race; and have no doubt that she was as nearly as possible lost off the Horn; she was lucky to get home. On her way home, she spoke with ships who reported her; so that she was expected when she appeared.'

ALICE C. GEORGE

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